Acer AL1511

Service Guide

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Conventions

The following conventions are used in this manual:

Screen messages	Denotes actual messages that appear on screen.
NOTE	Gives bits and pieces of additional information related to the current topic.
WARNING	Alerts you to any damage that might result from doing or not doing specific actions.
CAUTION	Gives precautionary measures to avoid possible hardware or software problems.
IMPORTANT	Remind you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.

2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

Warning: (FOR FCC CERTIFIED MODELS)

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Notice:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

As ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Warning:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

Precautions

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 3.5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- For use only with the attached power adapter (output 12V DC), which has **UL, CSA** listed license

Specific notes in LCD monitor

The following symptoms are normal with LCD monitor and do not indicate a problem.

Notes

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

Revision List

Revision	Release Date	Modify Instruction	TPV Model
A00	Nov.-11-2005	Initial Release	T560KVNHKGAGA
			T560KVNHKGADAP

Table of Contents

LCD Panel	Driving system	TFT Color LCD
	Size	38.1 cm (15.0")
	Panel Type	SVA150XG04TB
	Display Area	304.128mm(W) X: 228.096mm(H)
	Pixel pitch	0.297mm(H) x 0.297mm(V)
	Brightness	250cd/m^2 (type)
	Contrast Ratio	450:1 (type)
	Viewable angle	120° (H) /100° (V) (type)
	Response time	16ms (Tr + Tf) (type)
	Display Color	16.7M
	Weight	1000g(type)
Input	Video	R, G, B Analog Interface
	H-Frequency	30KHz – 60KHz
	V-Frequency	55-75Hz
Dot Clock		80MHZ
Max. Resolution		1024 x 768 @75Hz
Plug & Play		VESA DDC2B™
EPA ENERGY STAR®	ON Mode	≤30W
	OFF Mode	≤2W
Input Connector		D-Sub 15pin
Input Video Signal		Analog:0. 7Vp-p(standard), 75 OHM, Positive
Maximum Screen Size		Horizontal: 304.1mm; Vertical: 228.1mm
Power Source		100~264VAC,47~63HZ
Environmental Considerations		Operating Temp: 0° to 40°C Storage Temp: -20° to 60°C Operating Humidity: 10% to 85%
Dimensions		345(W) X353 (H) X160 (D) mm
Weight (N. W.)		2.7kg Unit (net)
Power Consumption (Maximum)		30 Watts
Regulatory Compliance		CUL, FCC, VCCI, CCC, MPR II, CE, TÜV/GS, TCO'99, ISO13406-2

Factory Preset Timing Table

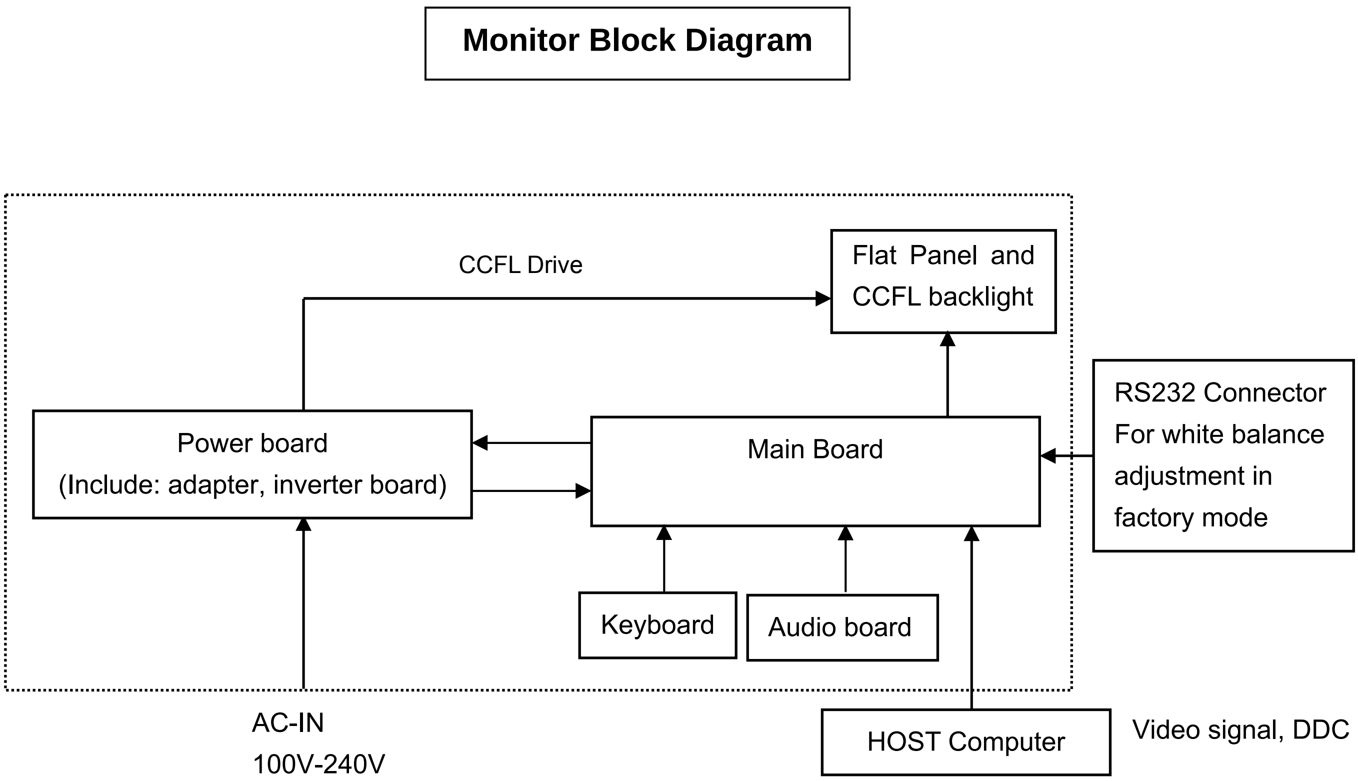
Video Mode		Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
VESA	VGA	640 x 480	31.469	59.940
		640 x 480	37.500	75.000
		640 x 480	37.861	72.809
	SVGA	800 x 600	35.156	56.250
		800 x 600	37.879	60.317
		800 x 600	46.875	75.000
	XGA	1024 x 768	48.363	60.004
		1024 x 768	56.476	70.069
		1024 x 768	60.023	75.029
IBM	DOS	720 x 400	31.469	70.087
MAC	XGA	1024 x 768	48.870	60.001
		1024 x 768	60.241	74.927

Monitor Block Diagram

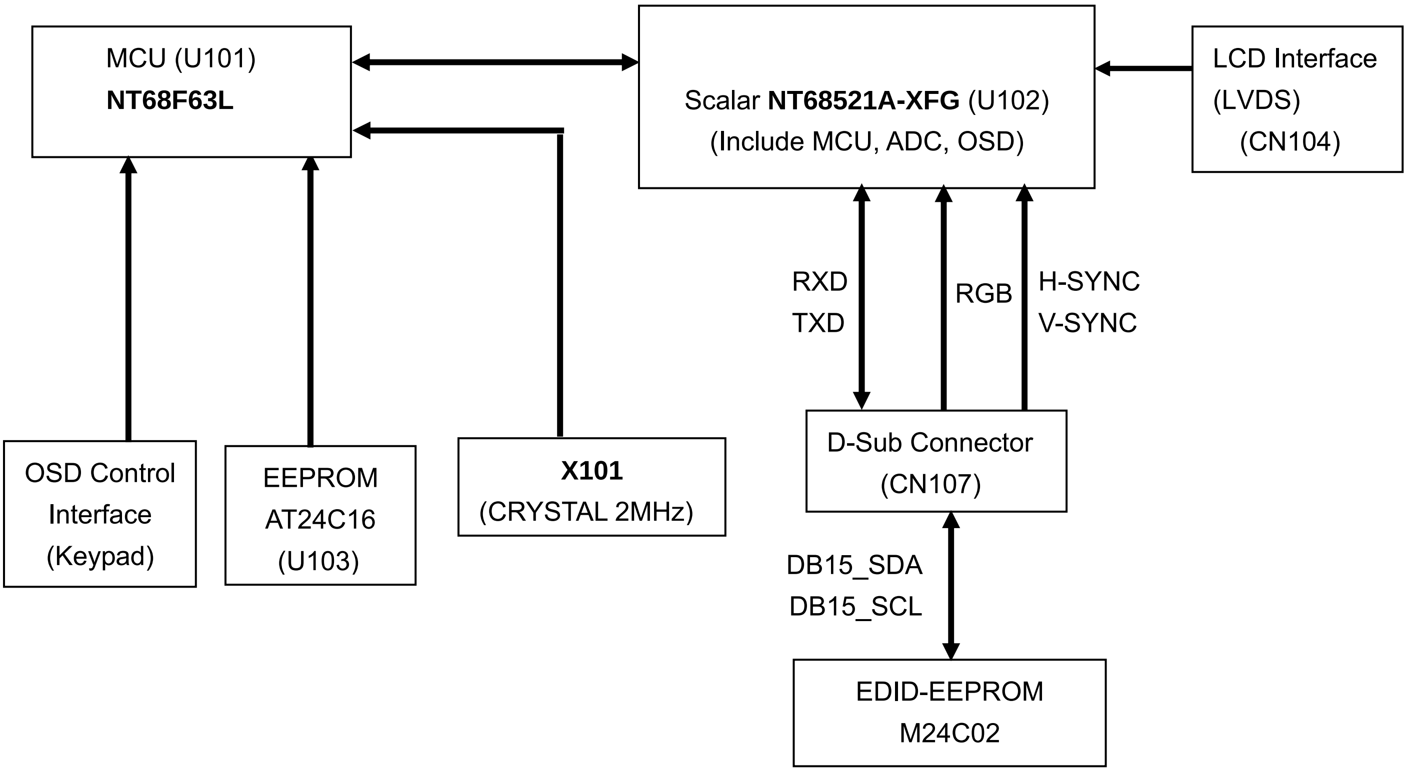
The LCD Monitor will contain a main board, an inverter/an internal adapter board, a keypad board and an audio board which house the flat panel control logic, brightness control logic and DDC.

The Inverter board will drive the backlight of panel and the DC-DC conversion.

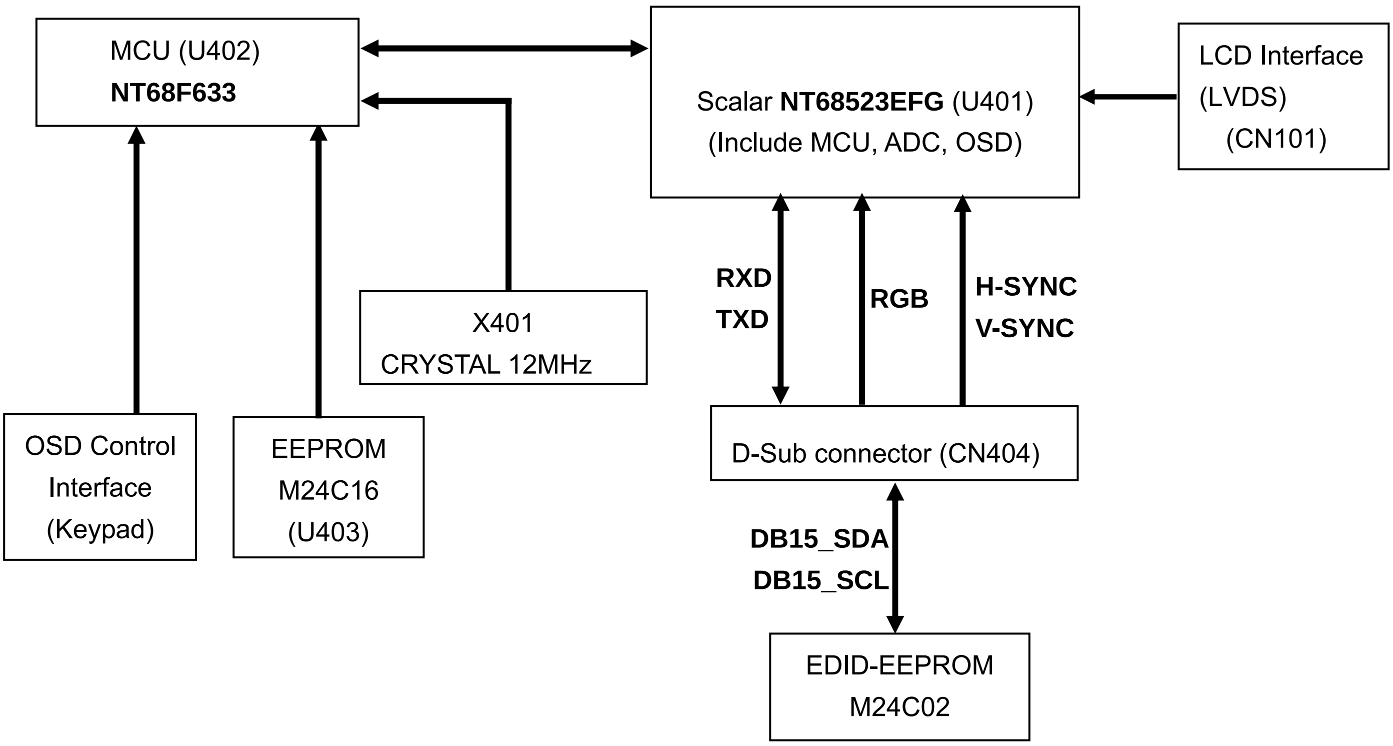
The Adapter will provide the 12V DC-power to inverter/power board.



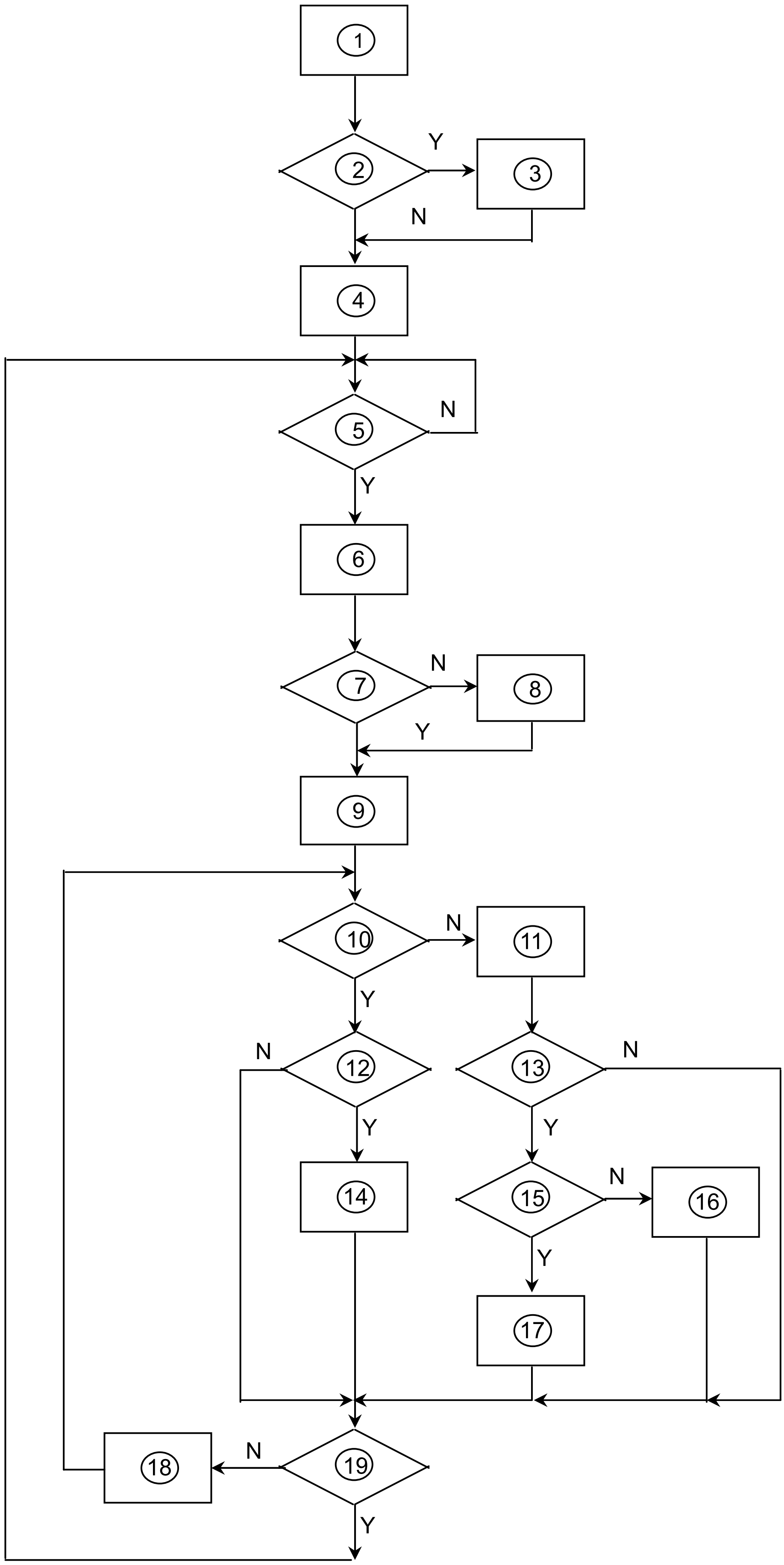
Main Board Block Diagram
For T560KVNHKGADAP model



For T560KVNHKGAGA model



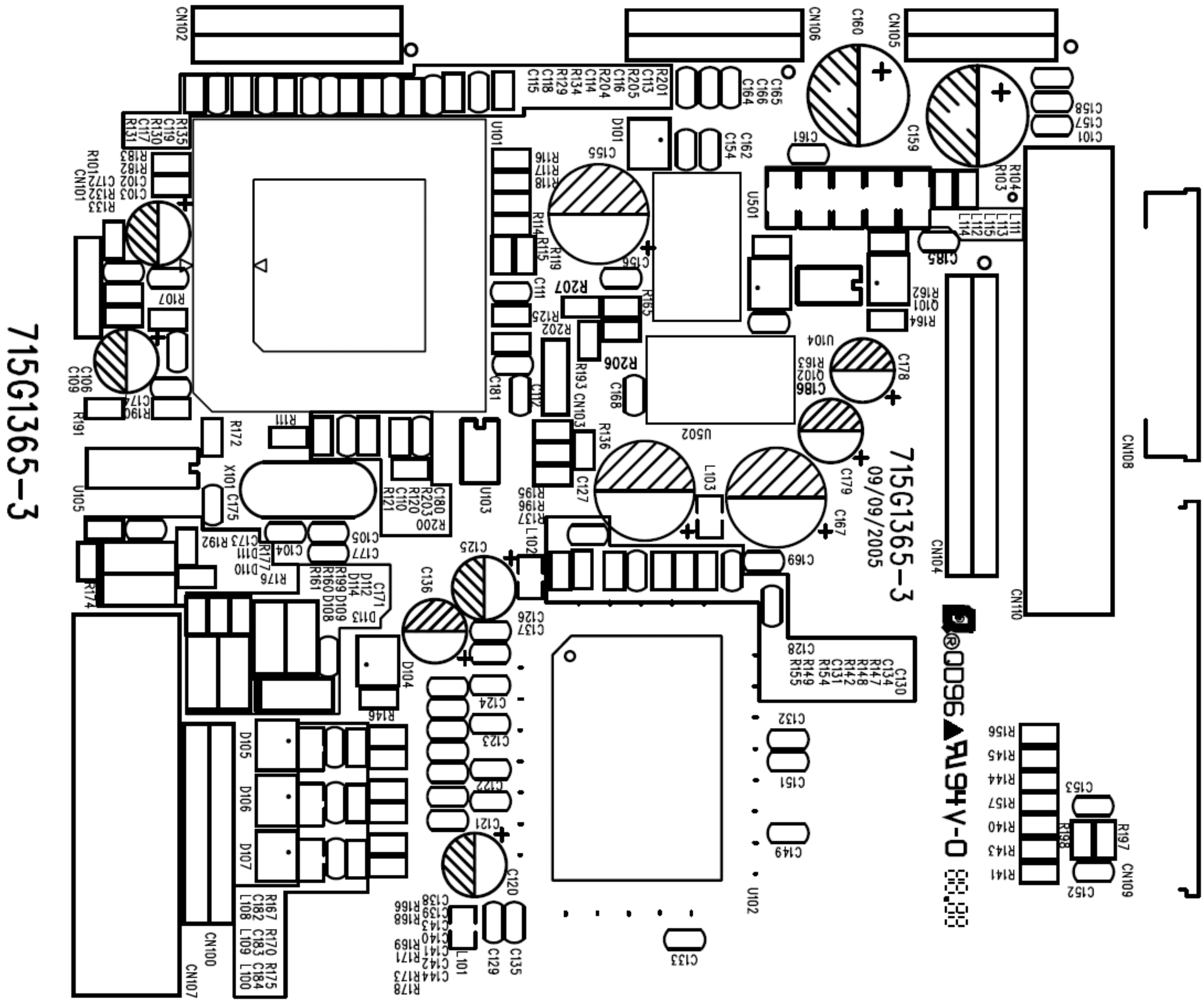
Software Flow Chart



1) MCU initializes.
2) Is the EEPROM blank?
3) Program the EEPROM by default values.
4) Get the PWM value of brightness from EEPROM.
5) Is the power key pressed?
6) Clear all global flags.
7) Are the AUTO and SELECT keys pressed?
8) Enter factory mode.
9) Save the power key status into EEPROM. Turn on the LED and set it to green color. Scalar initializes.
10) In standby mode?
11) Update the lifetime of back light.
12) Check the analog port, are there any signals coming?
13) Does the scalar send out an interrupt request?
14) Wake up the scalar.
15) Are there any signals coming from analog port?
16) Display "No connection Check Signal Cable" message. And go into standby mode after the message disappears.
17) Program the scalar to be able to show the coming mode.
18) Process the OSD display.
19) Read the keyboard. Is the power key pressed?

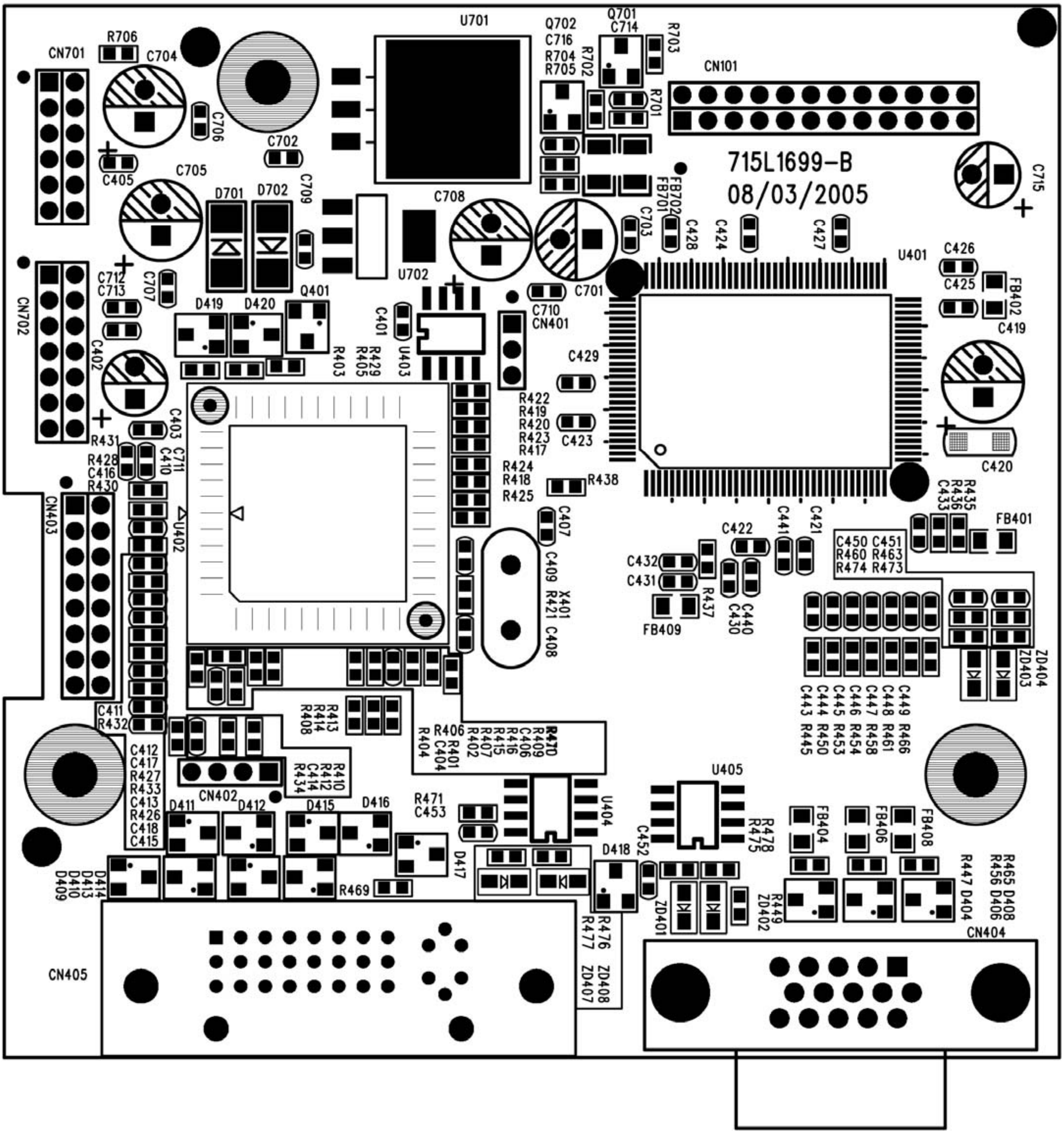
Main board Layout

For T560KVNHKGADAP model



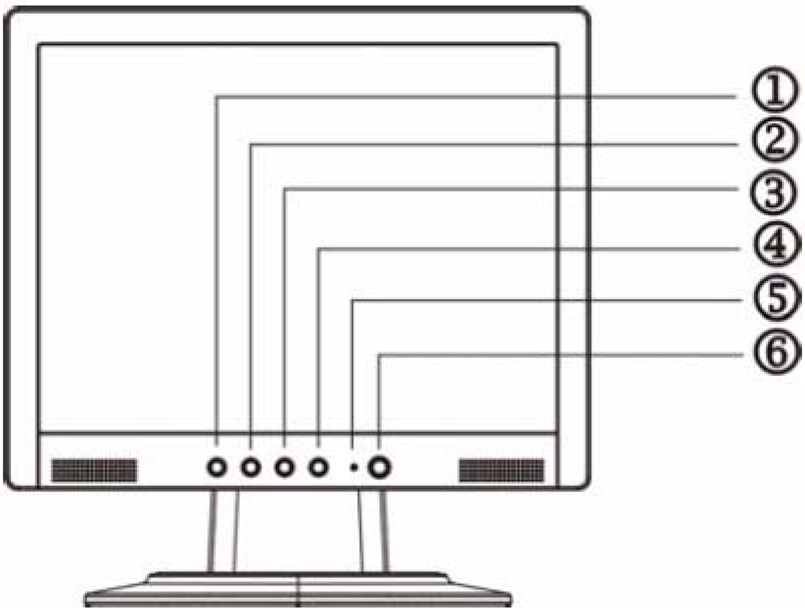
Item	Description
U102	NT68521A-XFG (Scaler)
U101	NT68F63L/G44L-PLU (MCU)
X101	CRYSTAL 12MHz HC-49US A (For MCU)
CN102	WIRE HARNESS
CN107	D-SUB 15P
CN105	WAFER 2*6P 2.0MM R/A
CN106	PIN HEADER 2*7 R/A
U103	AT24C16AN-10SU-2.7
U501	A1C1084-33PE
U502	AI1117D-1.8-EI

For T560KVNHKGAGA model



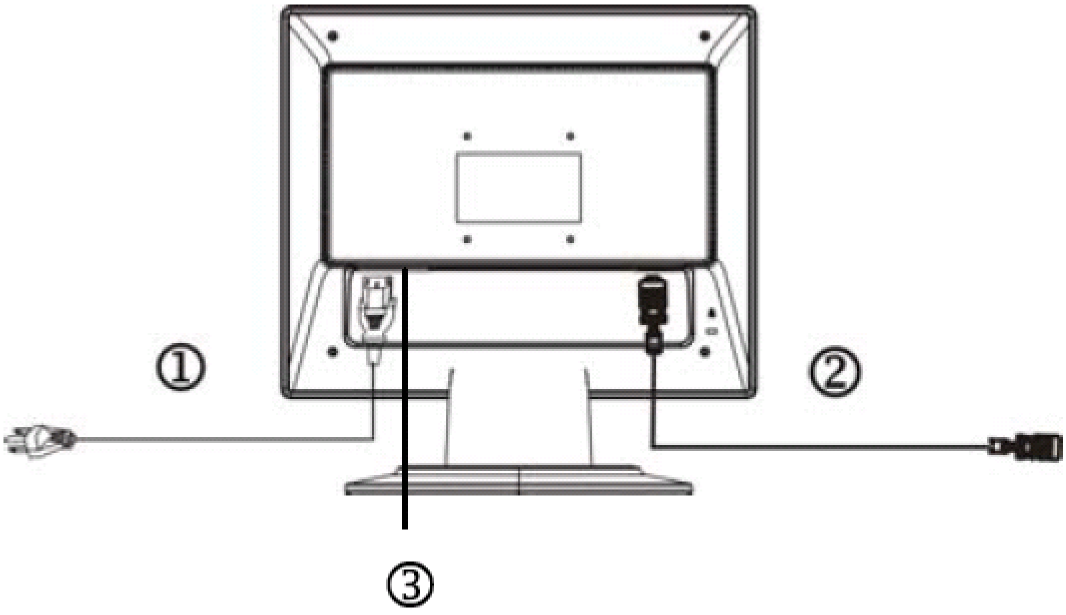
Item	Description
U401	NT68523EFG (Scaler)
U402	NT68F633 (MCU)
X401	CRYSTAL 12MHz HC-49US A
CN404	D-SUB 15PIN CONNECTOR
U403	M24C16-WMN6TP
U405	M24C02-WMN6TP
CN101	WAFER 14P 2.0MM DIP
CN403	WAFER 16PIN 2.0mm DIP
CN701	WAFER 2*6P 2.0MM R/A
CN702	PIN HEADER 2*7 R/A

Front Panel



1.	**Auto Adjust Key/Exit**	**4.**	**MENU/ENTER**
2.	**< /Volume**	**5.**	**LED**
3.	**> /Volume**	**6.**	**⏻Power Key**

Rear cover



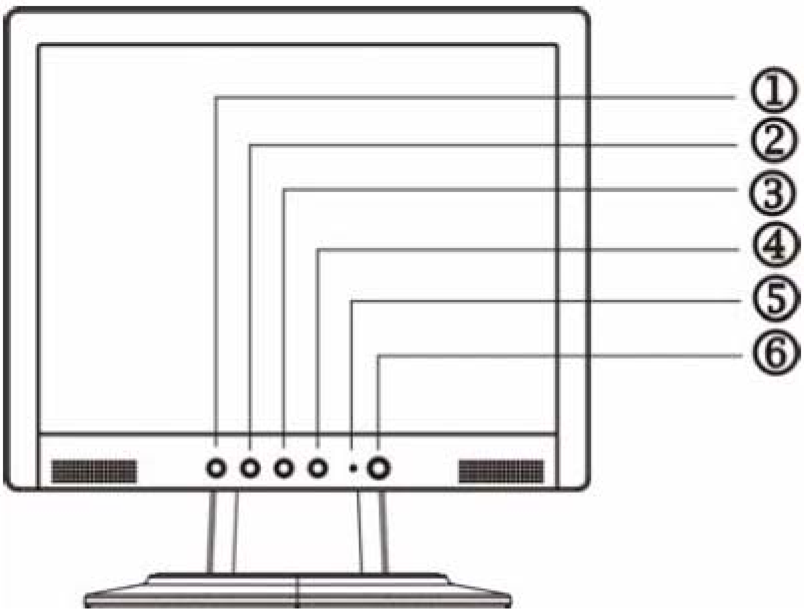
Item	Description
1.	Power cord
2.	Signal Cable
3.	Audio Cable

Chapter 2

Operating Instructions

Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.



External Control Button

1.	**Auto Adjust Key/Exit**	**4.**	**MENU/ENTER**
2.	**< /Volume**	**5.**	**LED**
3.	**> /Volume**	**6.**	**⏻Power Key**

Front Panel Controls

- ⏻ **Power Button:**

  Press this button to turn the monitor ON or OFF, and display the monitor's state.

- **Power Indicator:**

  Green —Power On mode.
  Orange —Off mode.

  NOTES

- **MENU / ENTER:**

  Activate OSD menu when OSD is OFF or activate/de-activate adjustment function when OSD is ON or Exit OSD menu when in Volume Adjust OSD status.

- </ **Volume:**

  Activates the volume control when the OSD is OFF or navigate through adjustment icons when OSD is ON or adjust a function when function is activated.

- >**/ Volume:**

  Activates the volume control when the OSD is OFF or navigate through adjustment icons when OSD is ON or adjust a function when function is activated.

- **Auto Adjust button / Exit:**

  1. When OSD menu is in active status, this button will act as EXIT-KEY (EXIT OSD menu).
  2. When OSD menu is in off status, press this button for 2 seconds to activate the Auto Adjustment function. The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus.

Notes

- Do not install the monitor in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.
- Save the original shipping carton and packing materials, as they will come in handy if you ever have to ship your monitor.
- For maximum protection, repackage your monitor as it was originally packed at the factory.
- To keep the monitor looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always unplug the monitor before cleaning it.

OSD Menu

How to adjust a setting

1. Press the MENU- button to activate the OSD window.
2. Press <or >to select the desired function.
3. Press the MENU-button to select the function that you want to adjust.
4. Press < or >to change the settings of the current function.
5. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-4.

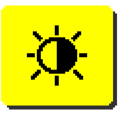
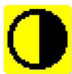
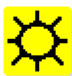
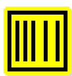
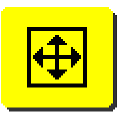
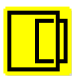
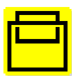
Adjusting the picture

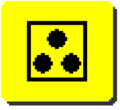
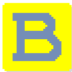
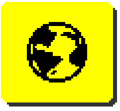
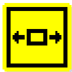
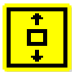
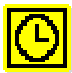
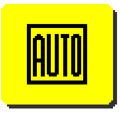
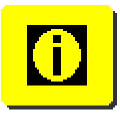
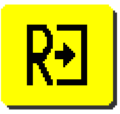
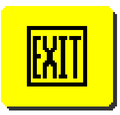
Main OSD Menu:

a.Outline:



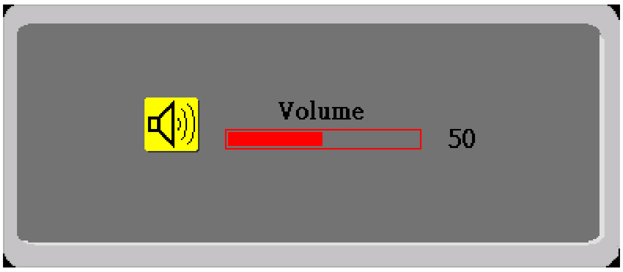
b. The description for control function:

Main Menu Icon	Sub Menu Item	Sub Menu Icon	Description
	Contrast		Adjusts the contrast between the foreground and background of the screen image.
	Brightness		Adjusts the background the screen image.
	Focus		Adjust Picture Phase to reduce Horizontal-Line noise
	Clock		Adjust picture Clock to reduce Vertical-Line noise.
	H. Position		Adjust the horizontal position of the picture.
	V. Position		Adjust the vertical position of the picture.

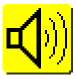
	Warm	N/A	Recall Warm Color Temperature from EEPROM.
	Cool	N/A	Recall Cool Color Temperature from EEPROM.
	User / Red		Adjusts Red/Green/Blue intensity.
	User/Green		
	User / Blue		
	English	N/A	Multi-language Selection
	繁體中文	N/A	
	Deutsch	N/A	
	Français	N/A	
	Español	N/A	
	Italiano	N/A	
	简体中文	N/A	
	日本語	N/A	
	H. Position		Adjust the horizontal position of the OSD.
	V. Position		Adjust the vertical position of the OSD.
	OSD Timeout		Adjust the OSD timeout.
 (Analog-Only Model)	Auto Config	N/A	Auto Adjust the H/V Position, Focus and Clock of picture.
	Information	N/A	Show the resolution, H/V frequency and input port of current input timing.
	Reset	N/A	Clear each old status of Auto-configuration and set the color temperature to Cool.
	Exit	N/A	Save user adjustment and OSD disappear.

Hot-Key Menu (option):

a. Outline:



b. The description for Hot-Key function:

Item	Operation	Icon	Description	Adjustment Range	Reset Value
Volume	When the OSD is closed, press Left or Right button will be Volume Hot-Key Function		Volume of Audio adjustment. The Audio will be Mute when volume=0.	0-100	50

OSD Message:

a. Outline:



b. The description for OSD Message:

Item	Description
Auto Config Please Wait	1.) When Analog signal input, if User Press Hot-Key “Auto”, will show this message, and the monitor do the auto config function. 2.) When Digital signal input, without this OSD Message.
Input Not Supported	When the Hsync Frequency, Vsync Frequency or Resolution is out of the monitor support range, will show this message. This message will be flying.
Cable Not Connected	1.) Analog-Only Model: When the video cable is not connected, will show this message. This message will be flying. 2.) Dual-Input Model: Dual-Input Model without this OSD Message.
No Signal	1.) Analog-Only Model: When the video cable is connected, but there is no active signal input, will show this message, then enter power saving. 2.) Dual-Input Model: When the video cable is not connected, or the video cable is connected but there is no active signal input, will show this message, then enter power saving.

LOGO

When the monitor is power on, the LOGO will be showed in the center, and disappear slowly.

HOW TO OPTIMIZE THE DOS-MODE

PLUG AND PLAY

Plug & Play DDC1/2B Feature

This monitor is equipped with VESA DDC1/2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities. The communication channel is defined in two levels, DDC1 and DDC2B.

The DDC1 is a unidirectional data channel from the display to the host that continuously transmits EDID information. The DDC2B is a bidirectional data channel based on the I^2C protocol. The host can request EDID information over the DDC2B channel.

THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL IF THERE IS NO VIDEO INPUT SIGNAL. IN ORDER FOR THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

USING THE RIGHT POWER CORD

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.

Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.

Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

Chapter 3

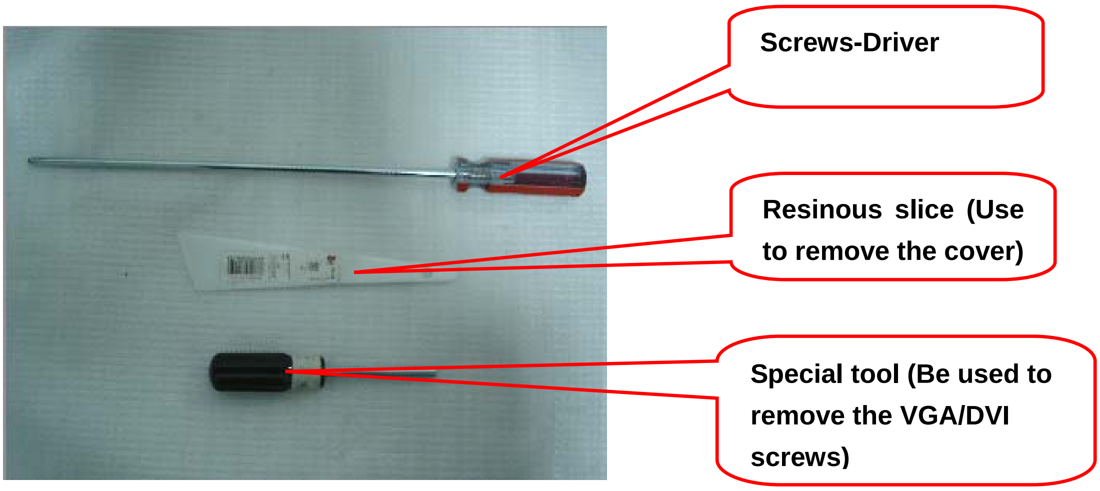
Machine Disassembly

This chapter contains step-by-step procedures on how to assemble the monitor for maintenance and troubleshooting.

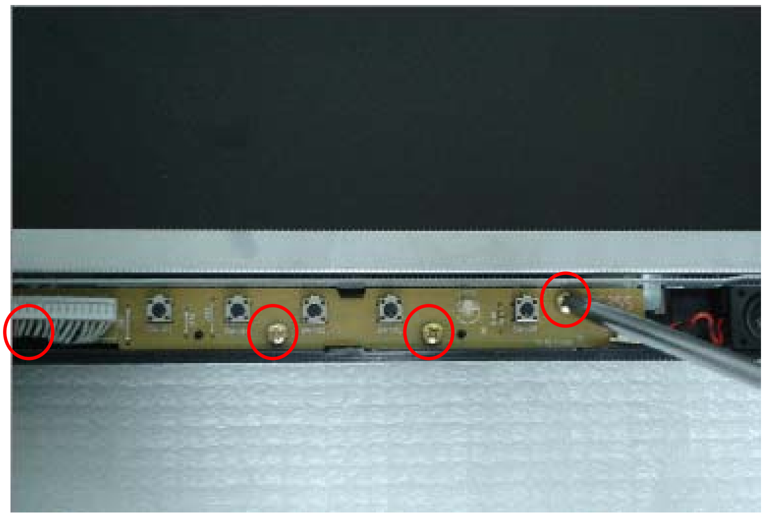
NOTE:

1. The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components.
2. Note: The monitor surface is susceptible to scratching! Therefore, lay the monitor on a soft surface when mounting or removing the base.
3. Wear gloves.

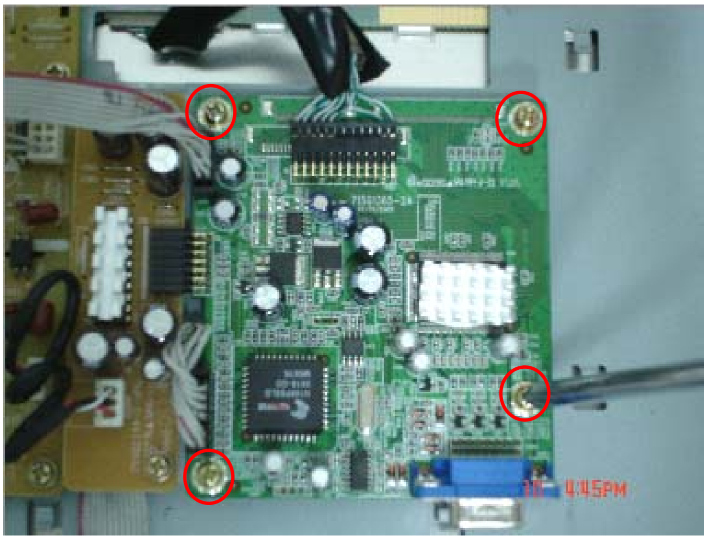
The tools for disassemble:

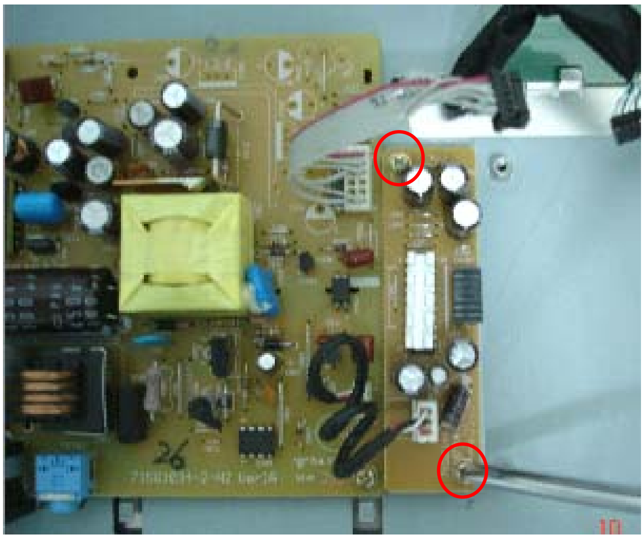


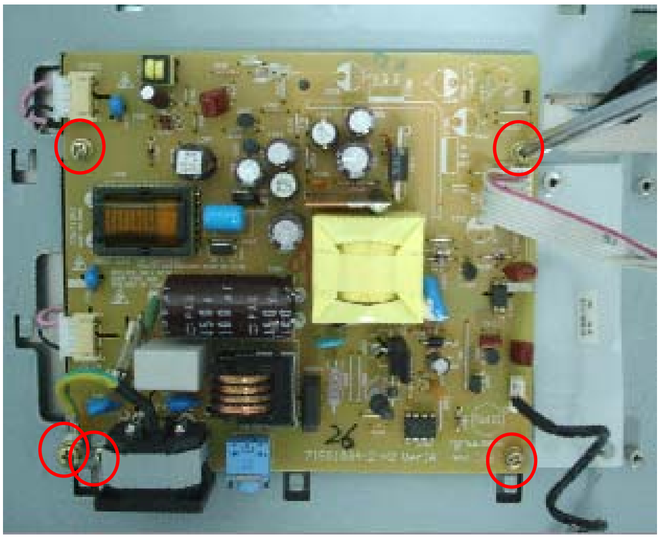
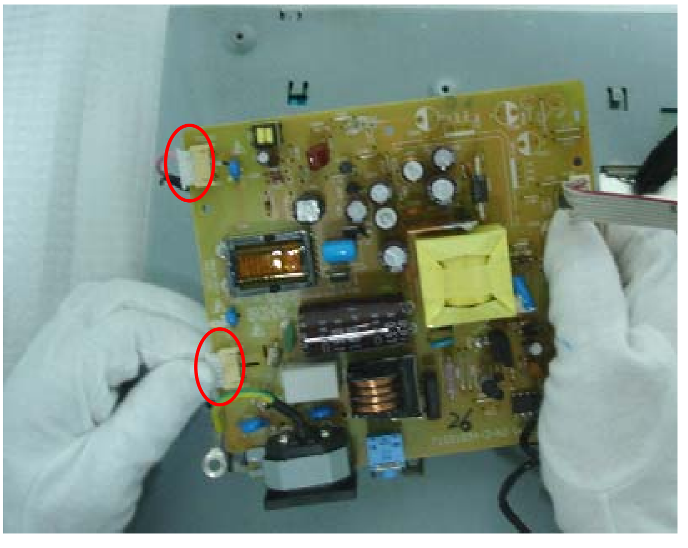
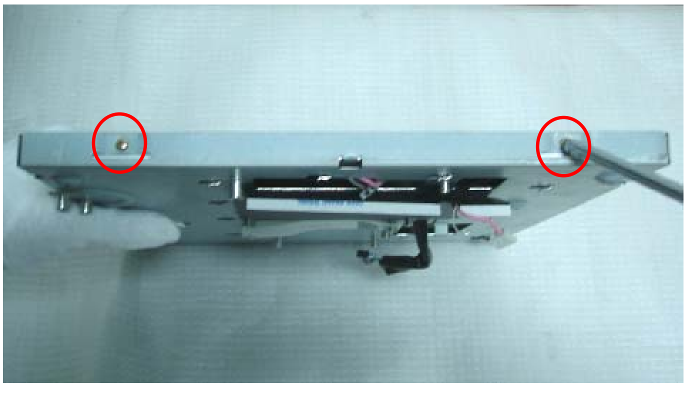
Process	Figures	Remark
Remove the stand		1. Put the LCD on a flat, soft and clean surface. 2. Remove the 4 screws.
Remove the		

front panel		1. Remove 4 screws in the rear cover.
		Stand up the monitor, make the front up, then find out the hooks' position, use the tool (like the picture or other card) to insert it to disassemble the monitor, then the front panel can be removed.
Remove the key board and rear cover		1. Lay the monitor down, 2. After finding out the key board, remove the 4 screws. The key board and back cover will be aparted.

<table>
<tr><td rowspan="2">Remove the shield</td><td></td><td>1. Remove the screw on the shield.</td></tr>
<tr><td></td><td>2. Remove the 2 screws for VGA connector.</td></tr>
<tr><td></td><td></td><td>Push the shield parallel along the arrowhead direction.</td></tr>
</table>

<table>
<tr>
<td>Remove the main board</td>
<td>


</td>
<td>1. Remove the 4 screws
2. Disconnect the connectors.</td>
</tr>
<tr>
<td>Remove the audio board</td>
<td></td>
<td>Remove the 2 screws</td>
</tr>
</table>

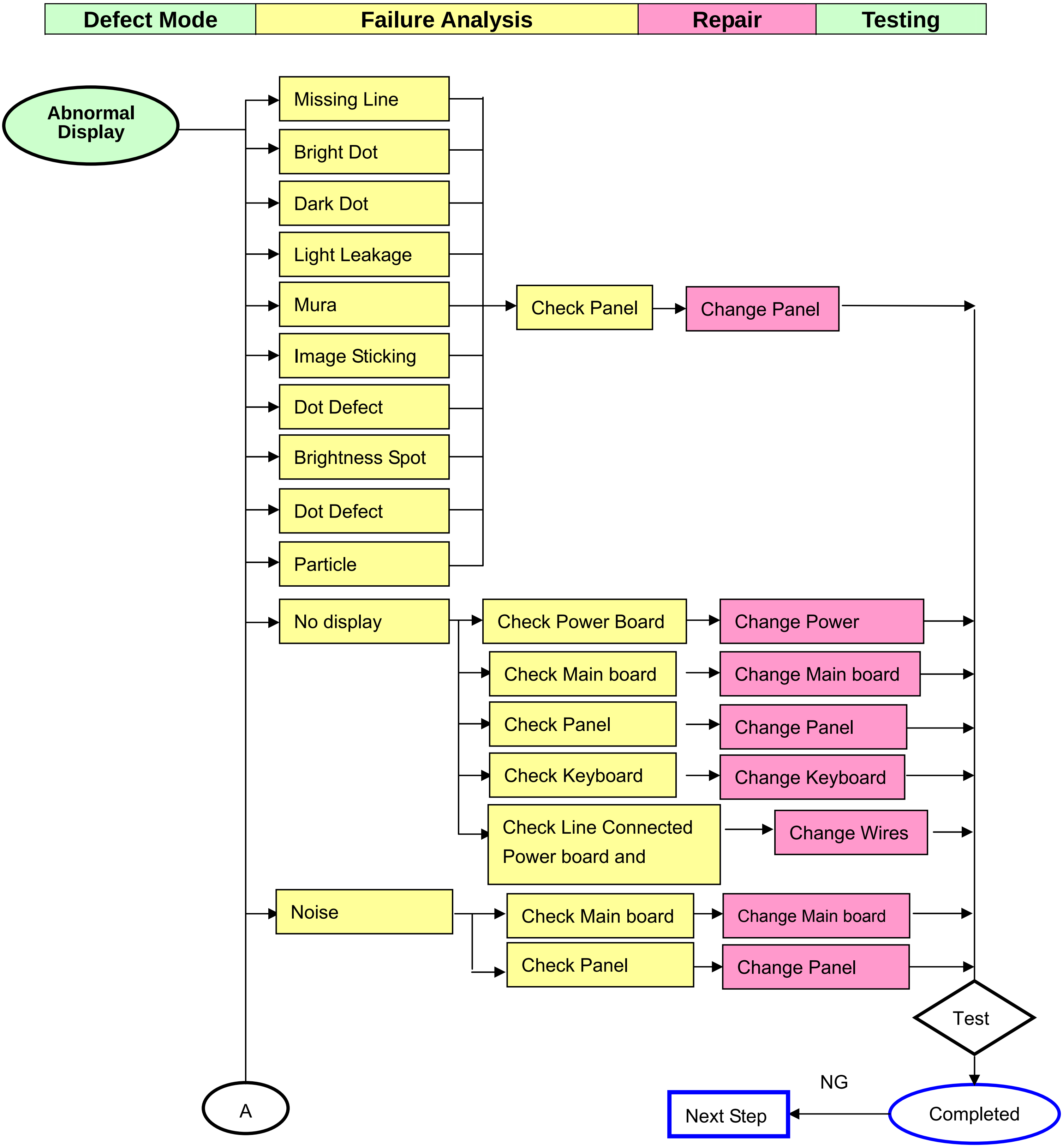
Remove the power board		Remove the 5 screws
Disconnect the wire harness		Disconnect the 2-wire harness connector for power and lamps.
Remove the main frame		1. Lay the panel left side up. 2. Remove the four screws (left and right, total 4).

The end		

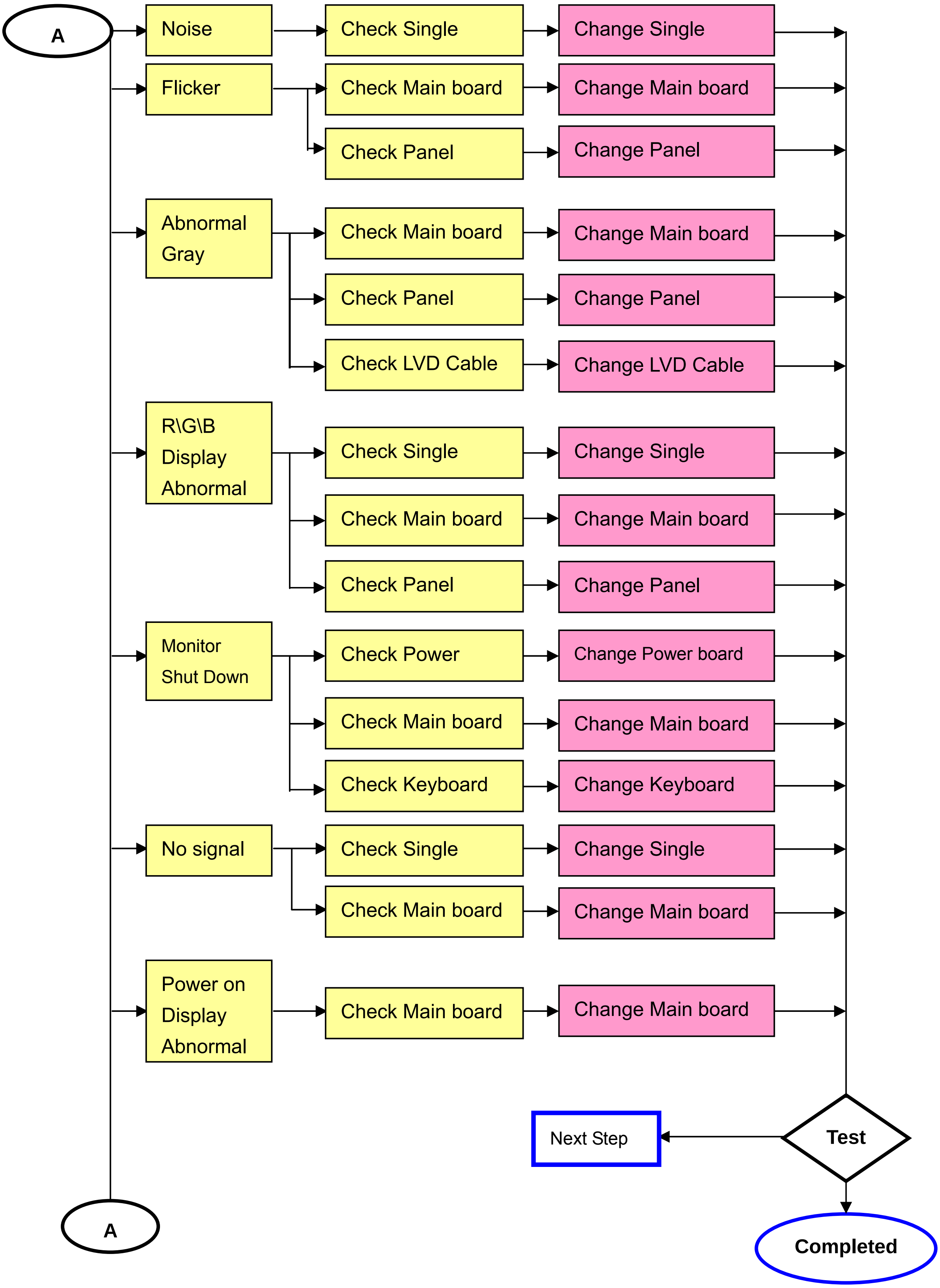
Troubleshooting

This chapter provides troubleshooting information for the AL1511:

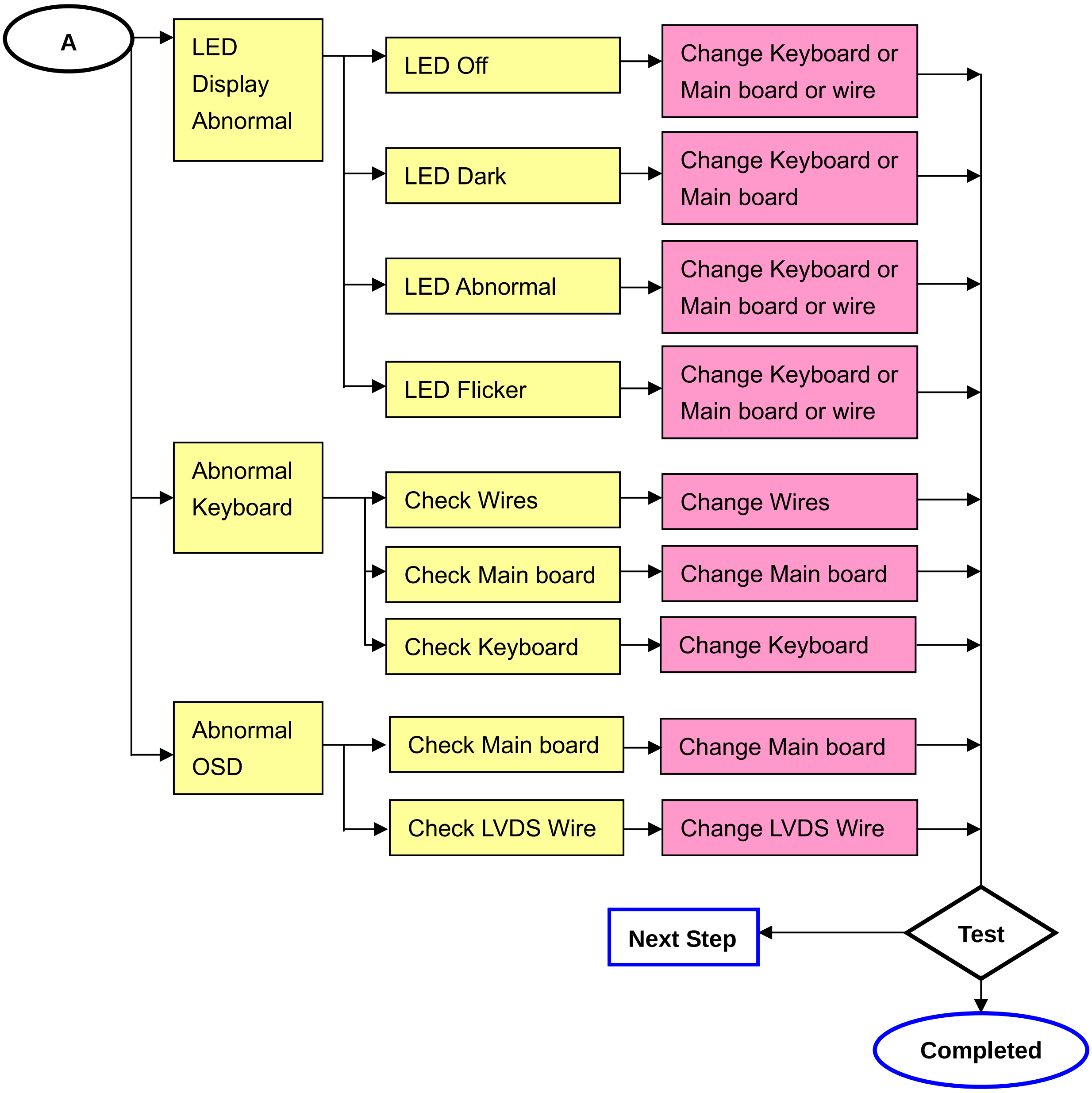
Main Board



Defect Mode	Failure Analysis	Repair	Testing

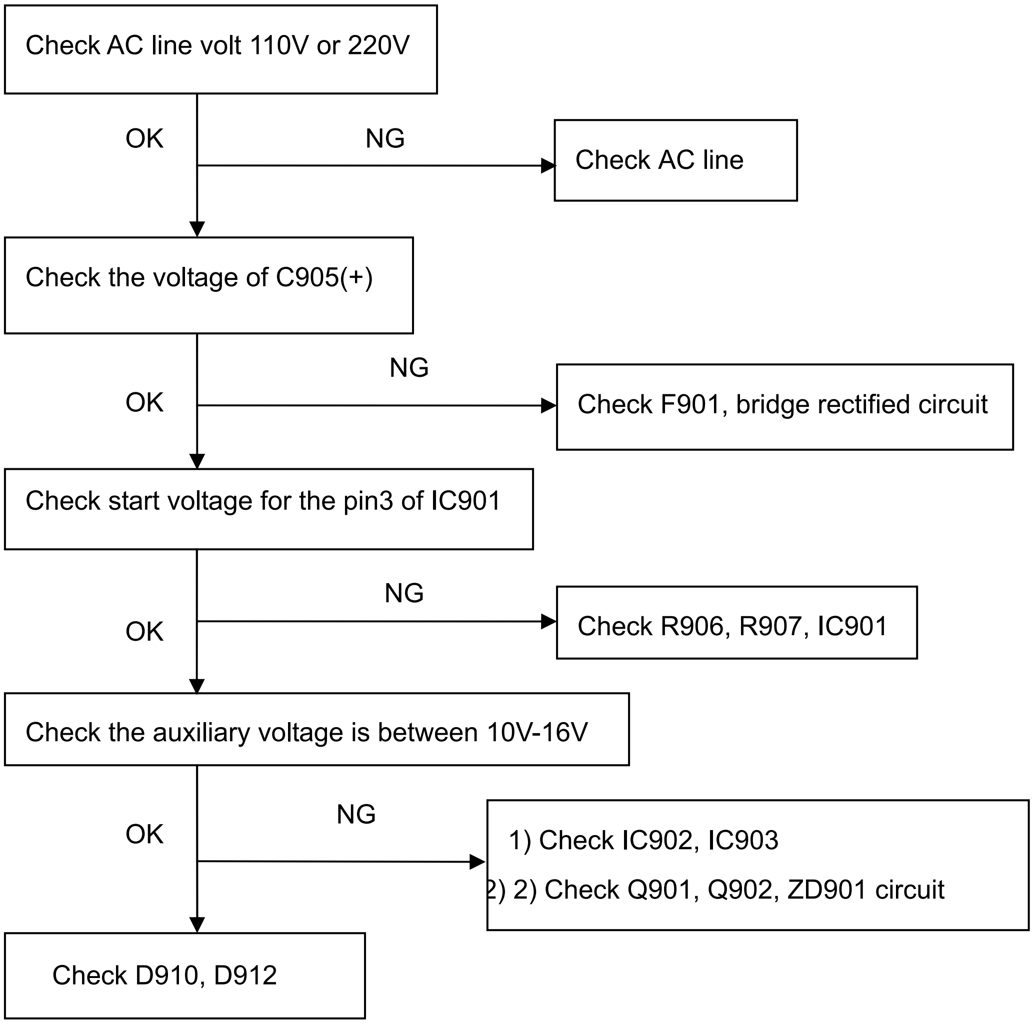


Defect Mode	Failure Analysis	Repair	Testing

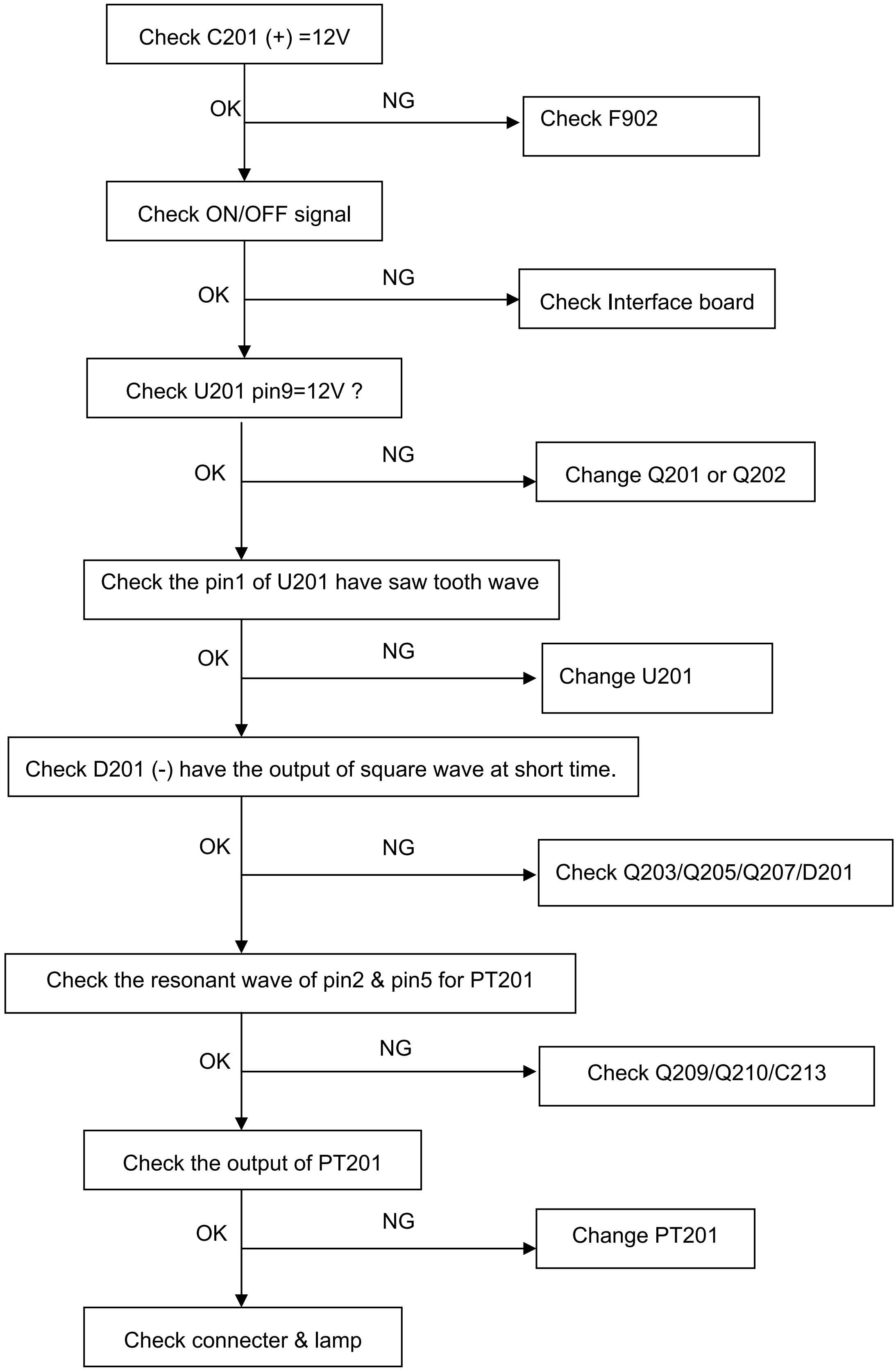


Power Board

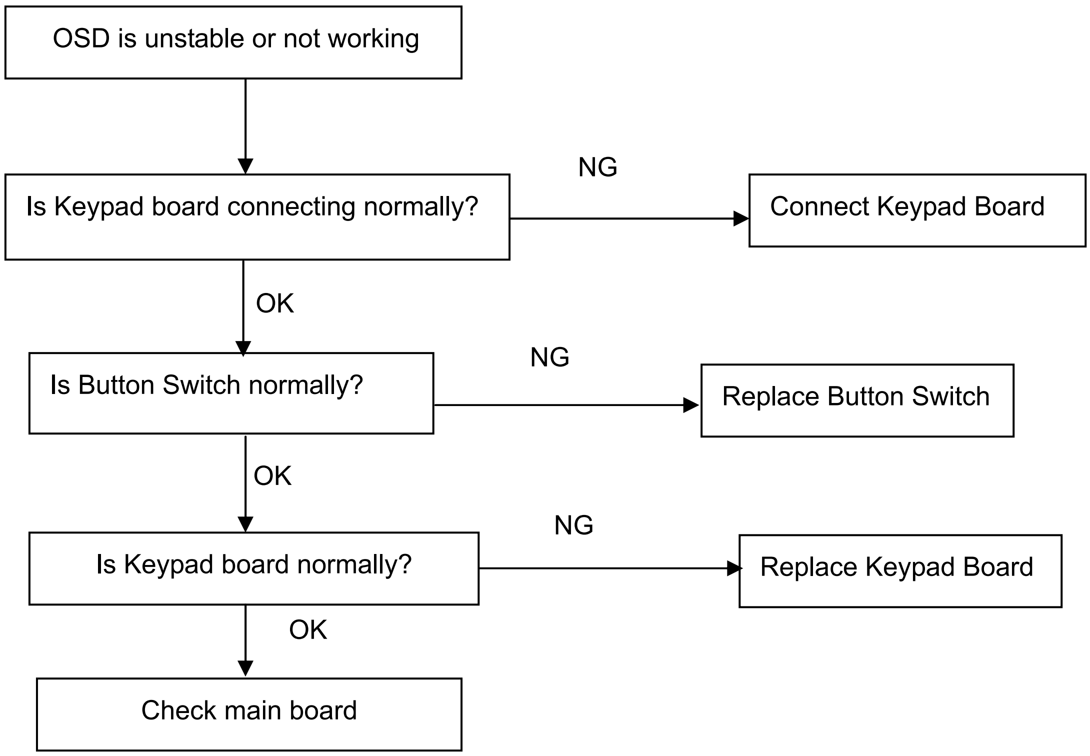
No Power



No Backlight

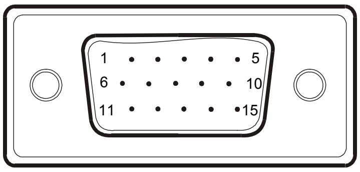


Key Board


OSD is unstable or not working
Is Keypad board connecting normally?
NG
Connect Keypad Board
OK
Is Button Switch normally?
NG
Replace Button Switch
OK
Is Keypad board normally?
NG
Replace Keypad Board
OK
Check main board

Connector Information

The following figure shows the connector locations on the monitor board:



15 - Pin Color Display Signal Cable (D-sub)

Pin No.	Description	Pi N No.	Description
1.	Red	9.	+ 5V
2.	Green	10.	Logic Ground
3.	Blue	11.	Monitor Ground
4.	Monitor Ground	12.	DDC-Serial Data
5.	DDC-Return	13.	H-Sync
6.	R-Ground	14.	V-Sync
7.	G-Ground	15.	DDC-Serial Clock
8.	B-Ground		

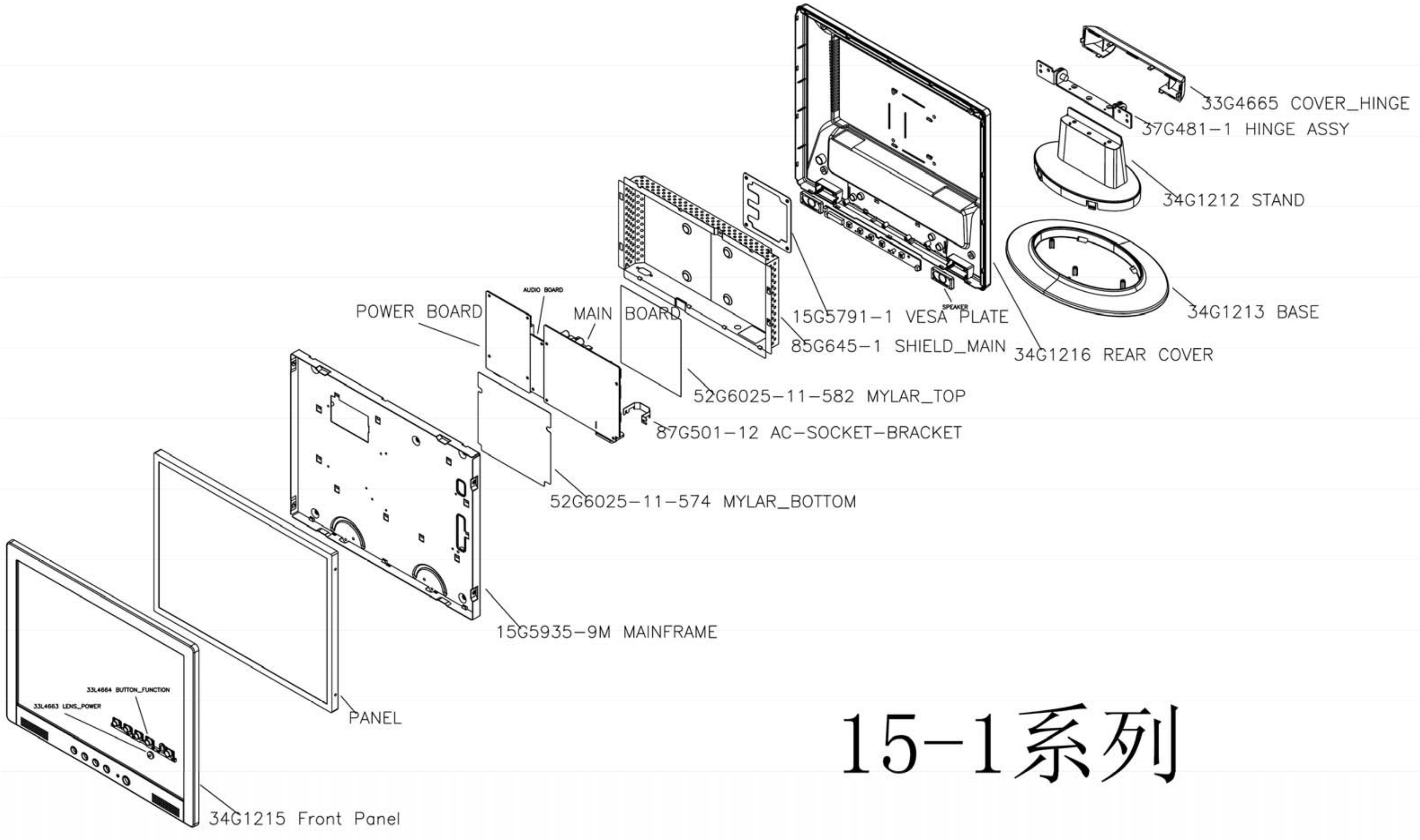
Chapter 6

FRU (Field Replaceable Unit) List

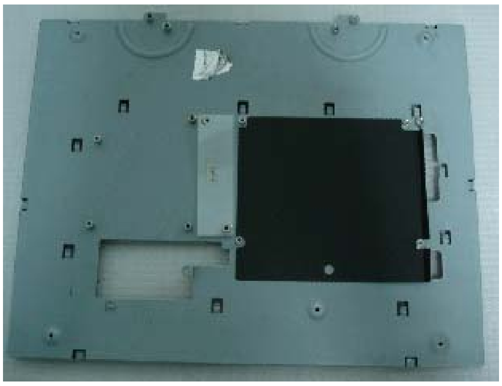
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of Acer Altos AL1511.Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization). Please note that WHENORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

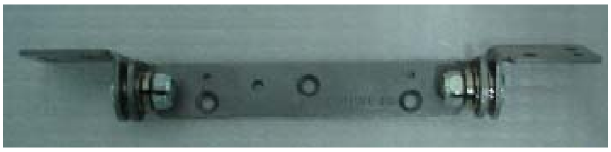
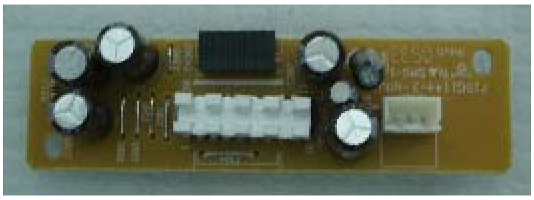
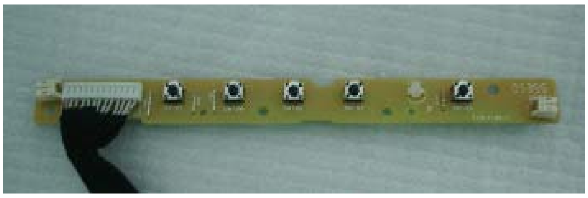
NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

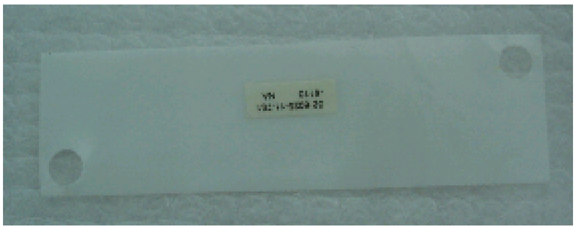
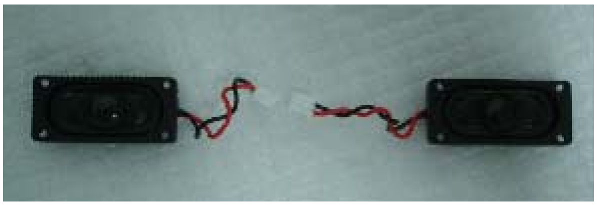
Exploded Diagram

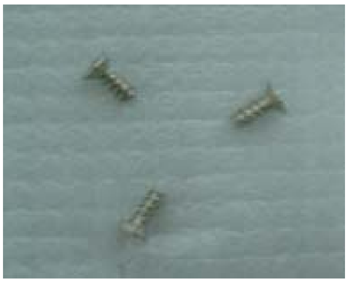


Note: above picture show the description of the following component

No.	Picture	Description
1		Front panel
2		Shield
3		Main Frame
4		Panel
5		Rear cover

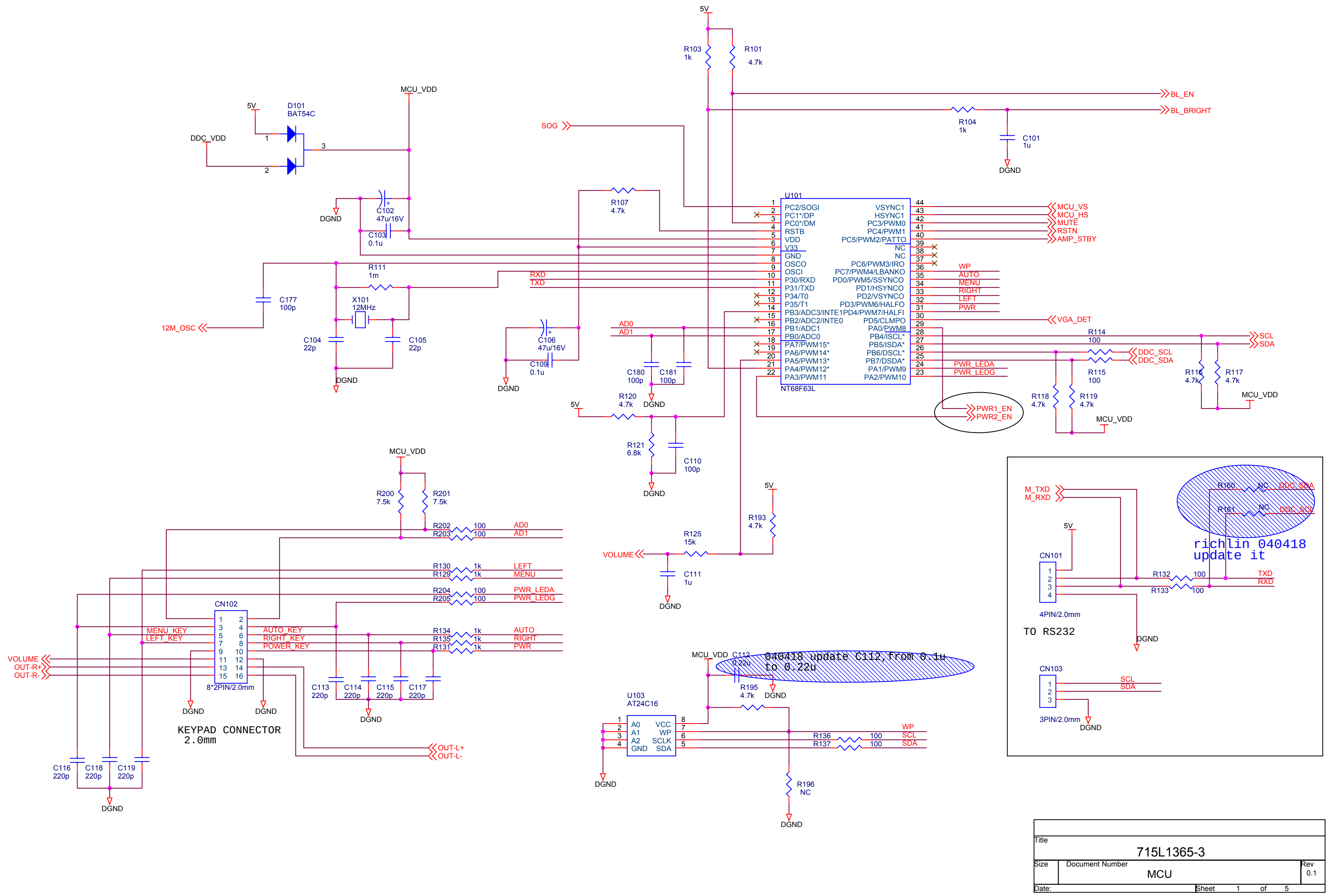
6		Hinge
7		Stand base
8		Main board
9		PWPC board
10		Audio board
11		Key board

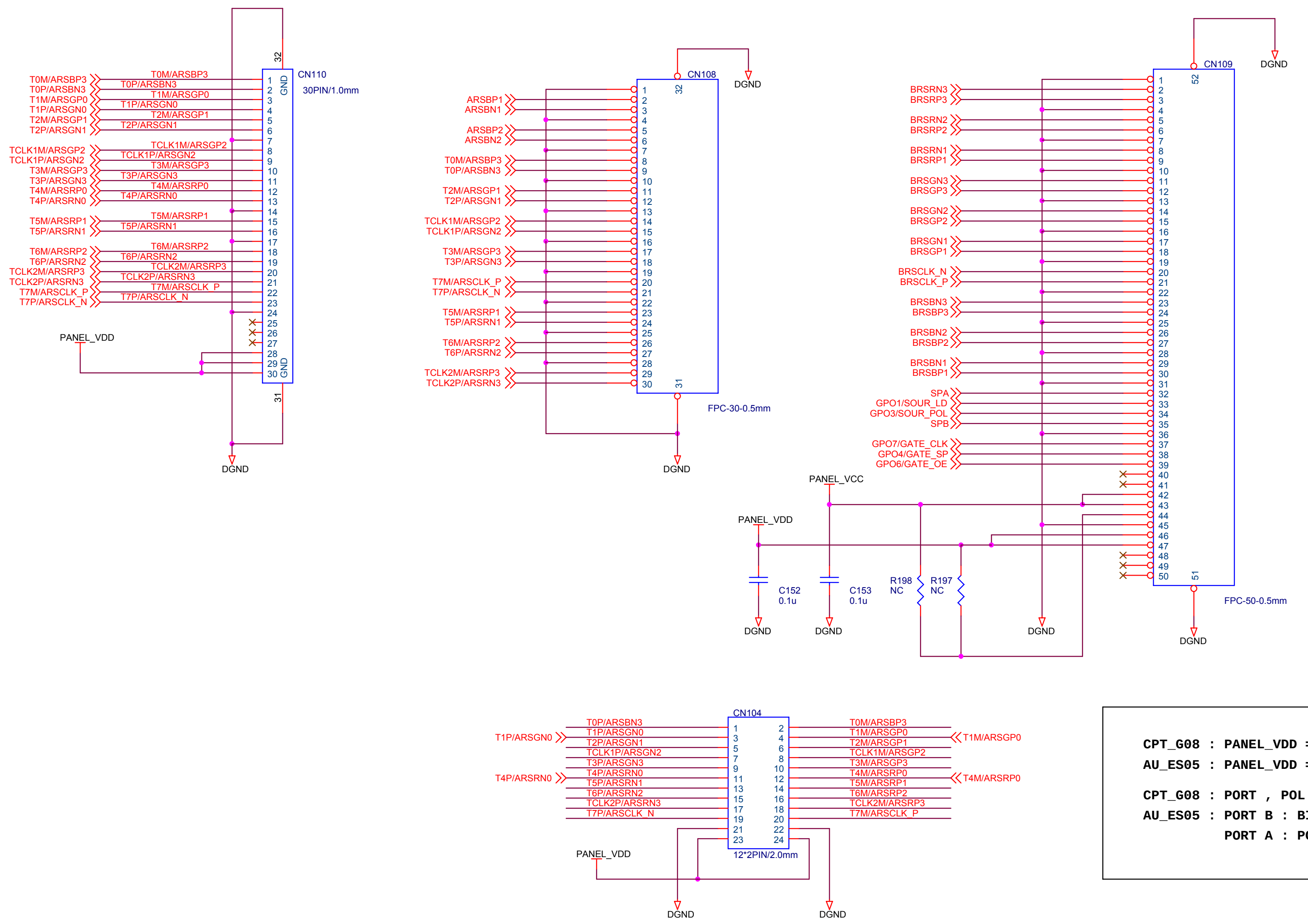
12	 	Mylar
13		Speakers
14		Signal cable
15		Audio cable (option)
16		Power code
17		Inverter board cable
18	 	LVDS cable

19		Main frame screws
20		Rear cover screws
21		Ground rush screw
22		Hinge cover screws
23		D-sub screws
24		Main/Power/Audio Board screws

Schematic Diagram

Main Board
For T560KVNHKGADAP model

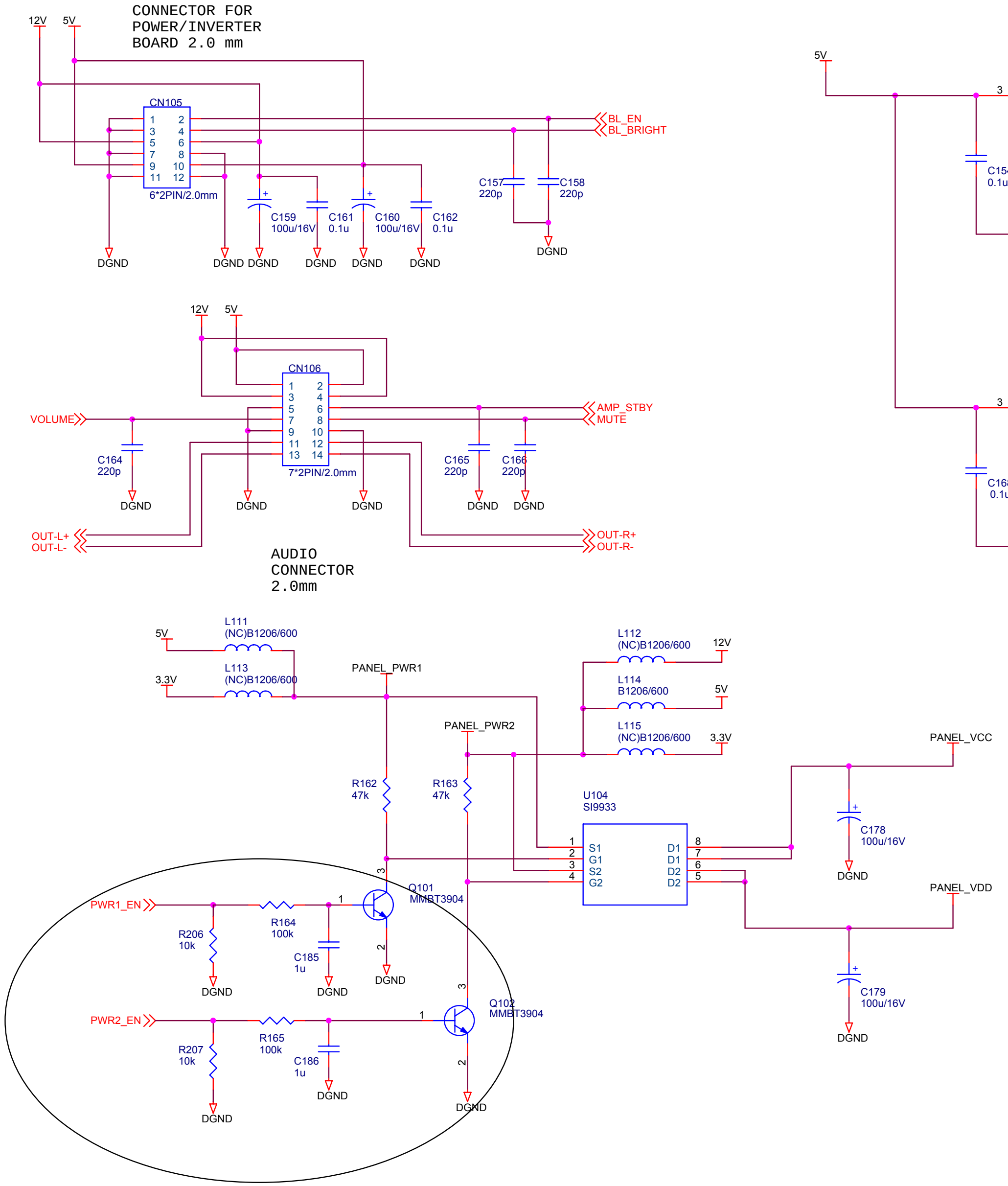




CPT_G08 : PANEL_VDD = 12V , PANEL_VCC = 3.3V
AU_ES05 : PANEL_VDD = 5V , PANEL_VCC = 5V

CPT_G08 : PORT , POL SWAP
AU_ES05 : PORT B : BIT , BYTE SWAP
PORT A : POL SWAP

Title	715L1365-3	
Size	Document Number: PANEL CONNECTER	Rev 0.1
Date:	Sheet 3 of 5	



U104 USE A04411

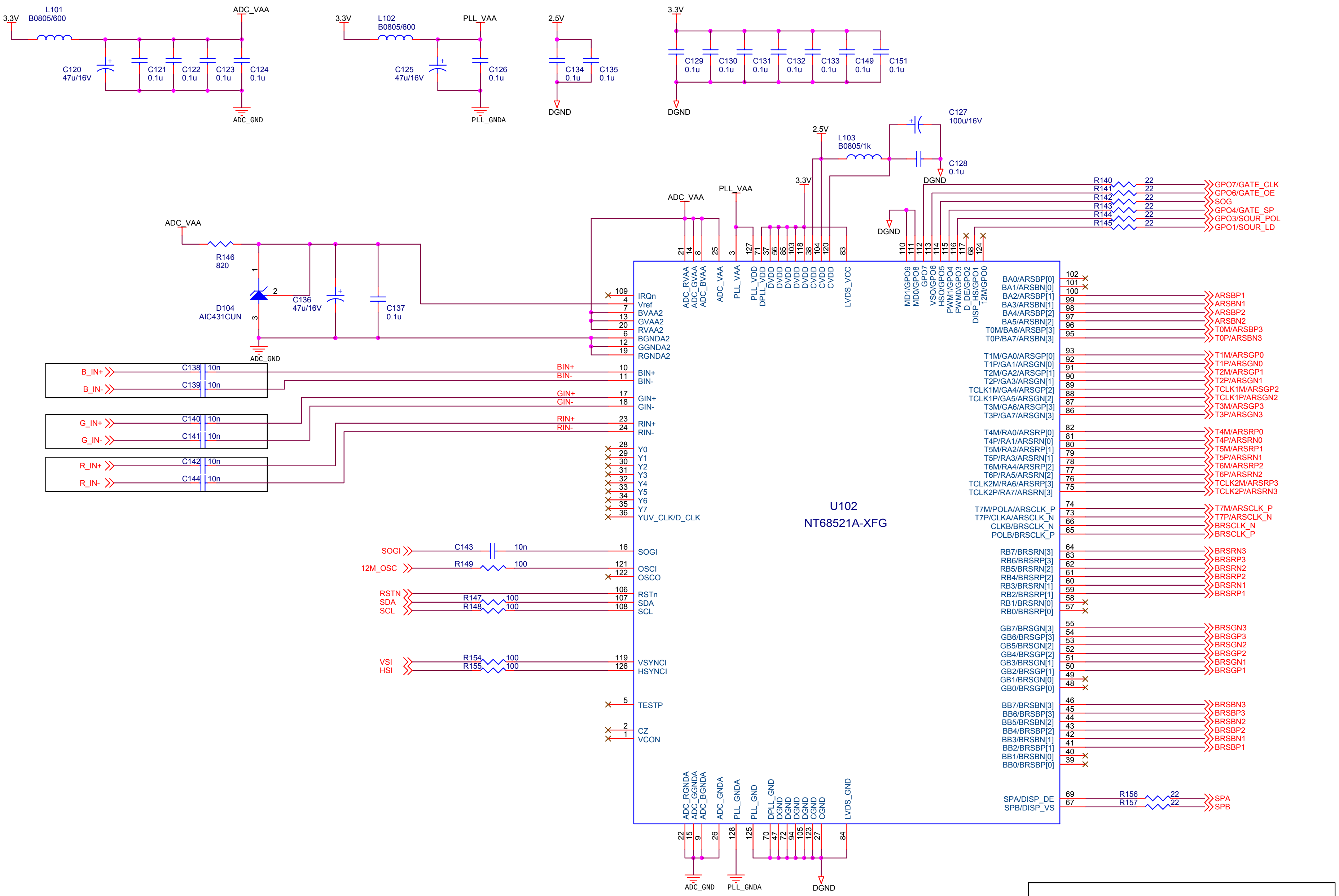
R162 NC, R164 NC, R206 NC, C185 NC, Q101 NC

	PANEL_VCC=PANEL_VDD
L112	12V
L114	5V
L115	3.3V

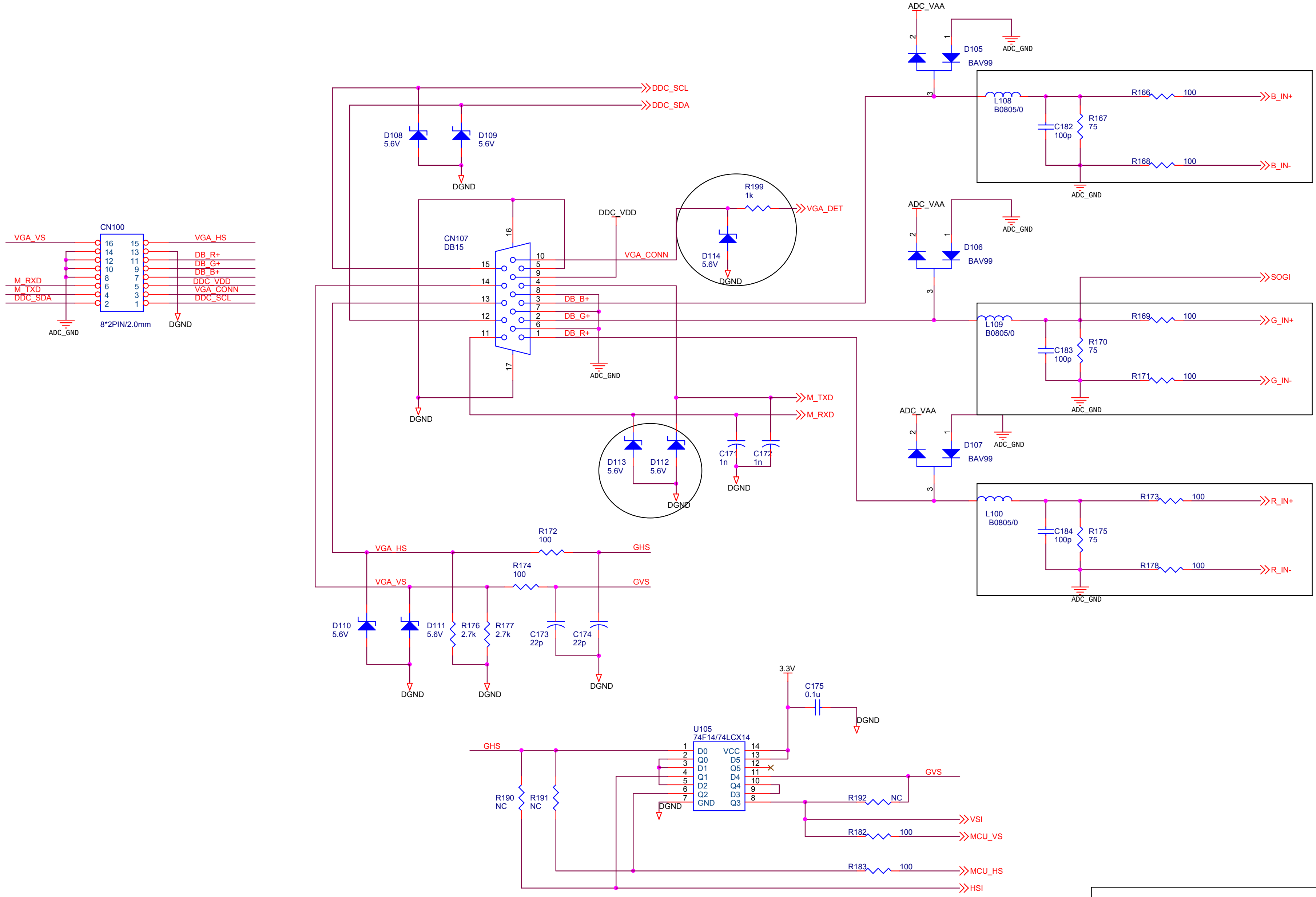
U104 USE SI9933 OR SI9953

	PANEL_VCC		PANEL_VDD
L111	5V	L112	12V
L113	3.3V	L114	5V
		L115	3.3V

Title	715L1365-3	
Size	Document Number: POWER	Rev 0.1
Date:	Sheet 4 of 5	

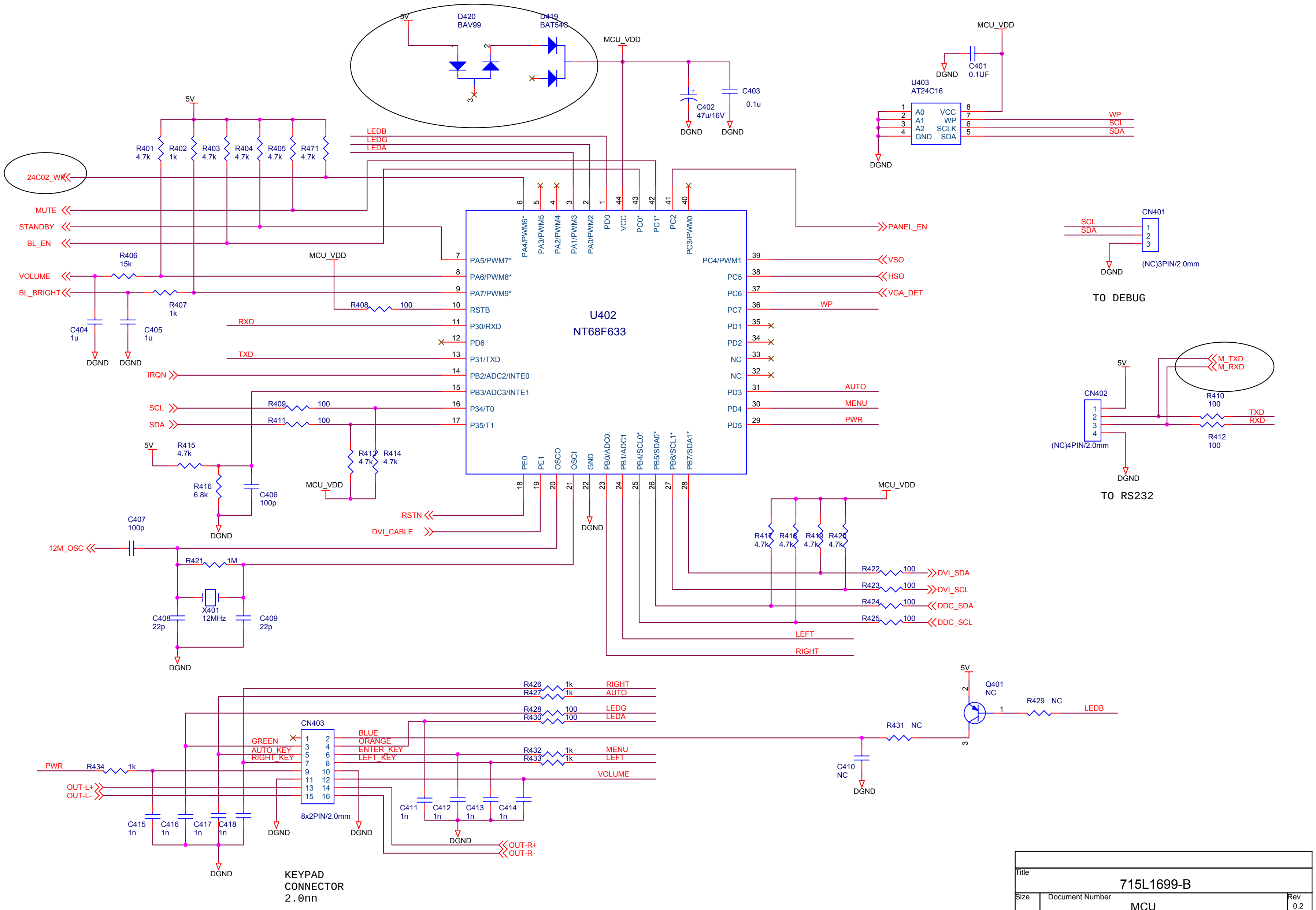


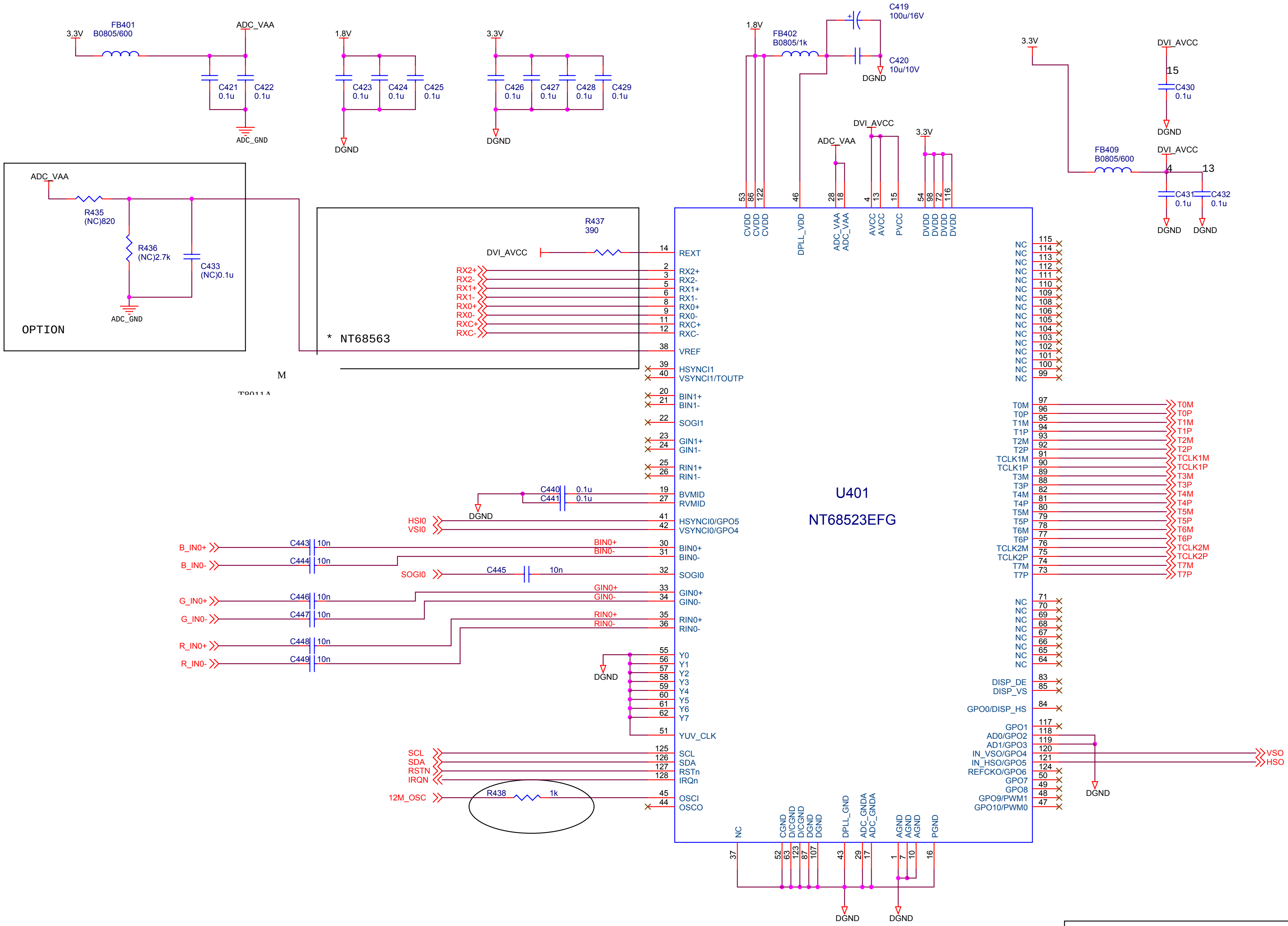
Title	715L1365-3	
Size	Document Number: SCALER	Rev 0.1
Date:	Sheet 2 of 5	



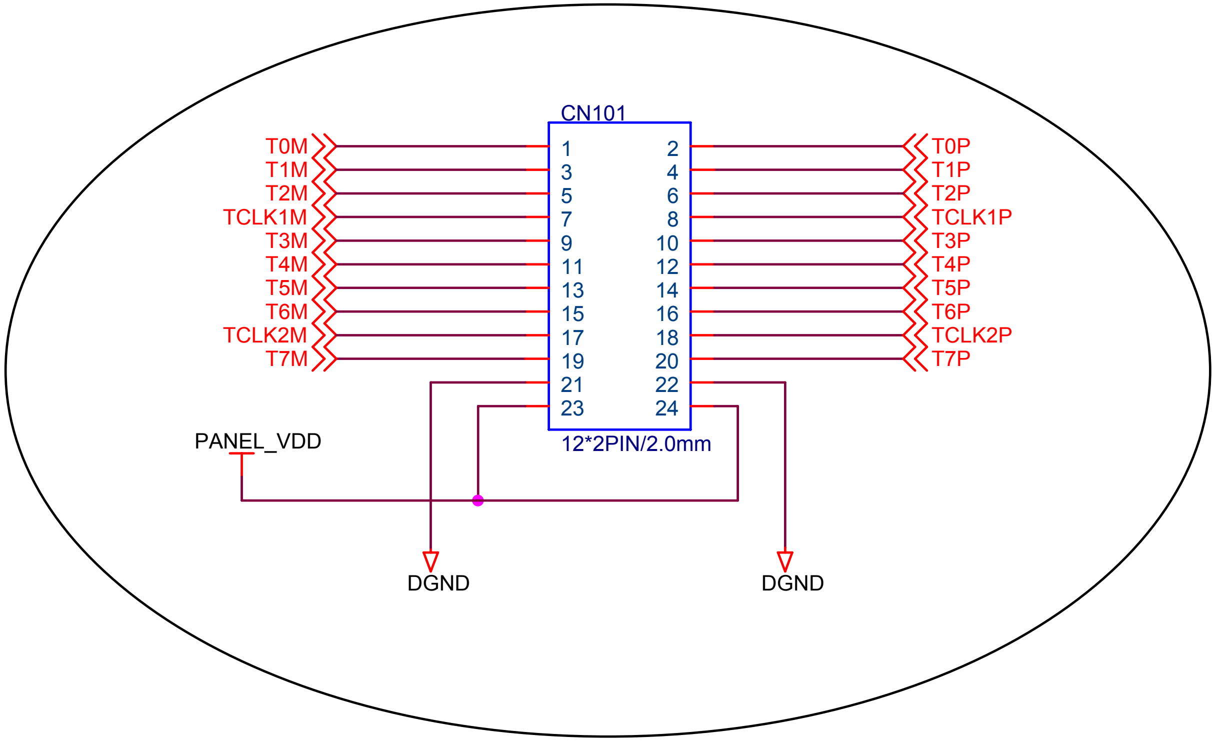
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Size	Document Number VGA INPUT	Rev 0.1
Date:	Sheet 5 of 5	

For T560KVNHKGAGA model

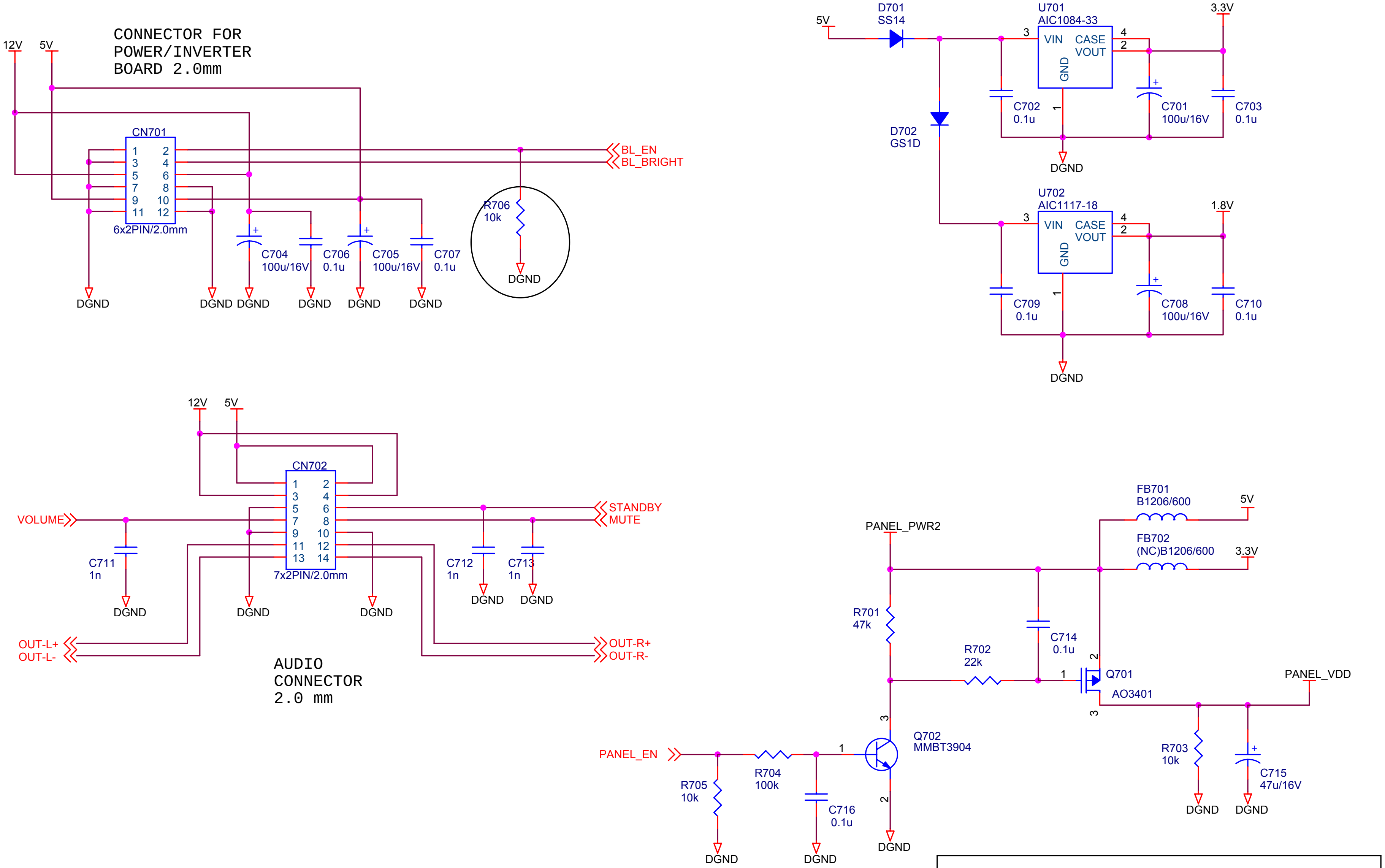




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Size	Document Number: SCALER	Rev 0.2
Date: Wednesday, August 03, 2005	Sheet 2 of 5	

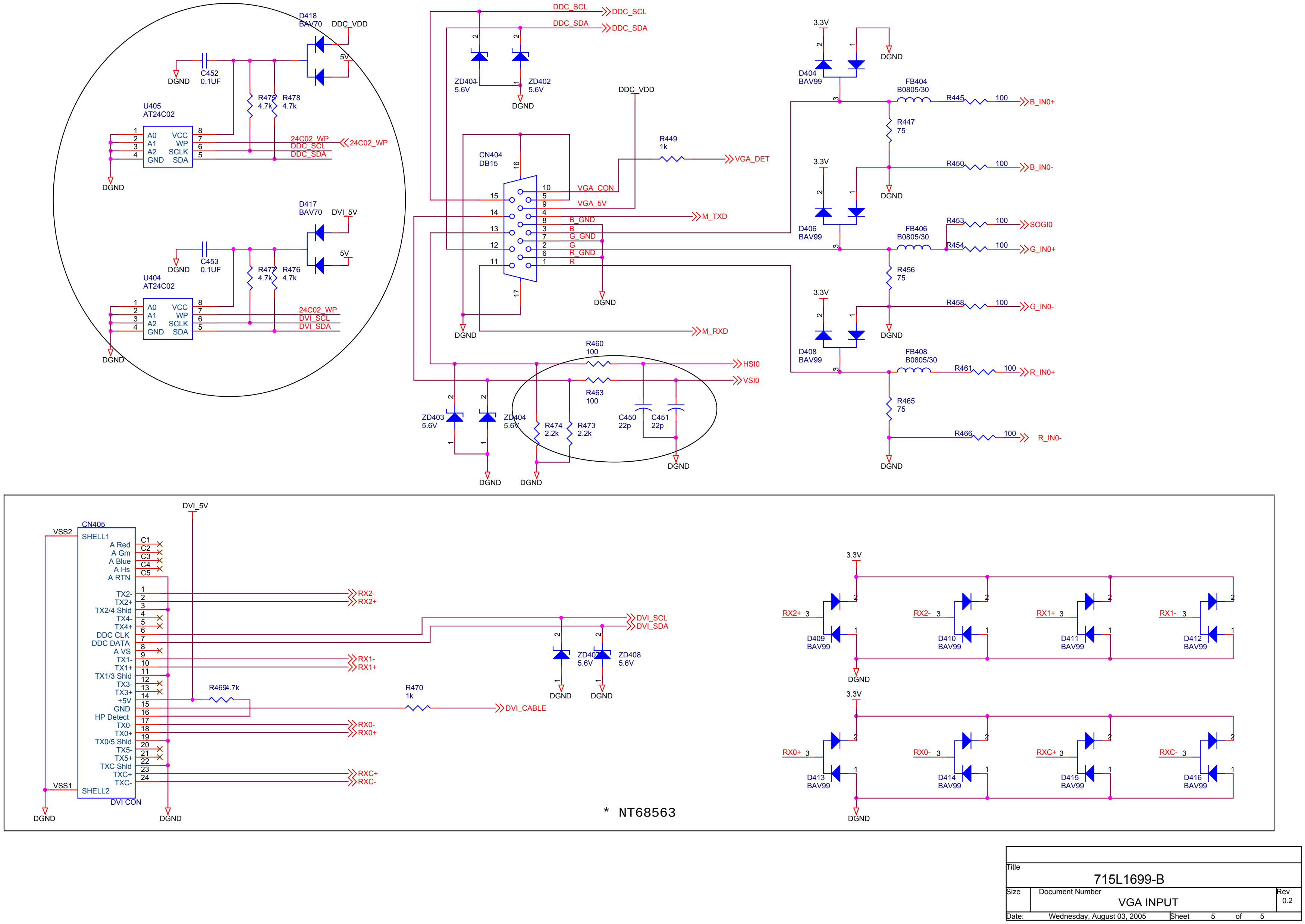


Title	715L1699-B		
Size	Document Number: PANEL CONNECTER		Rev 0.2
Date:	Wednesday, August 03, 2005	Sheet 3 of 5	

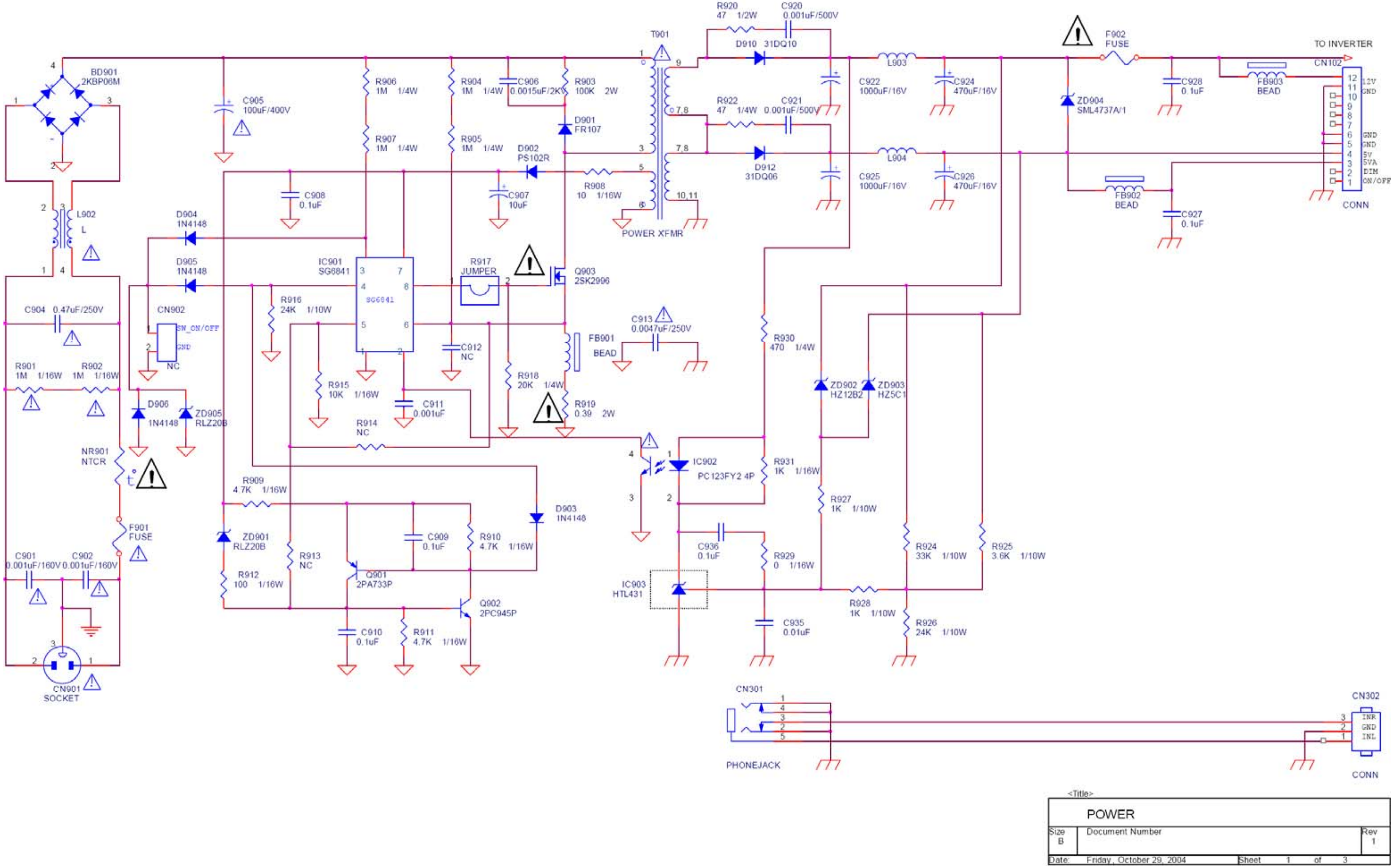


Title		
715L1699-B		
Size A4	Document Number POWER	Rev 0.2
Date: Wednesday, August 03, 2005	Sheet 4 of 5	

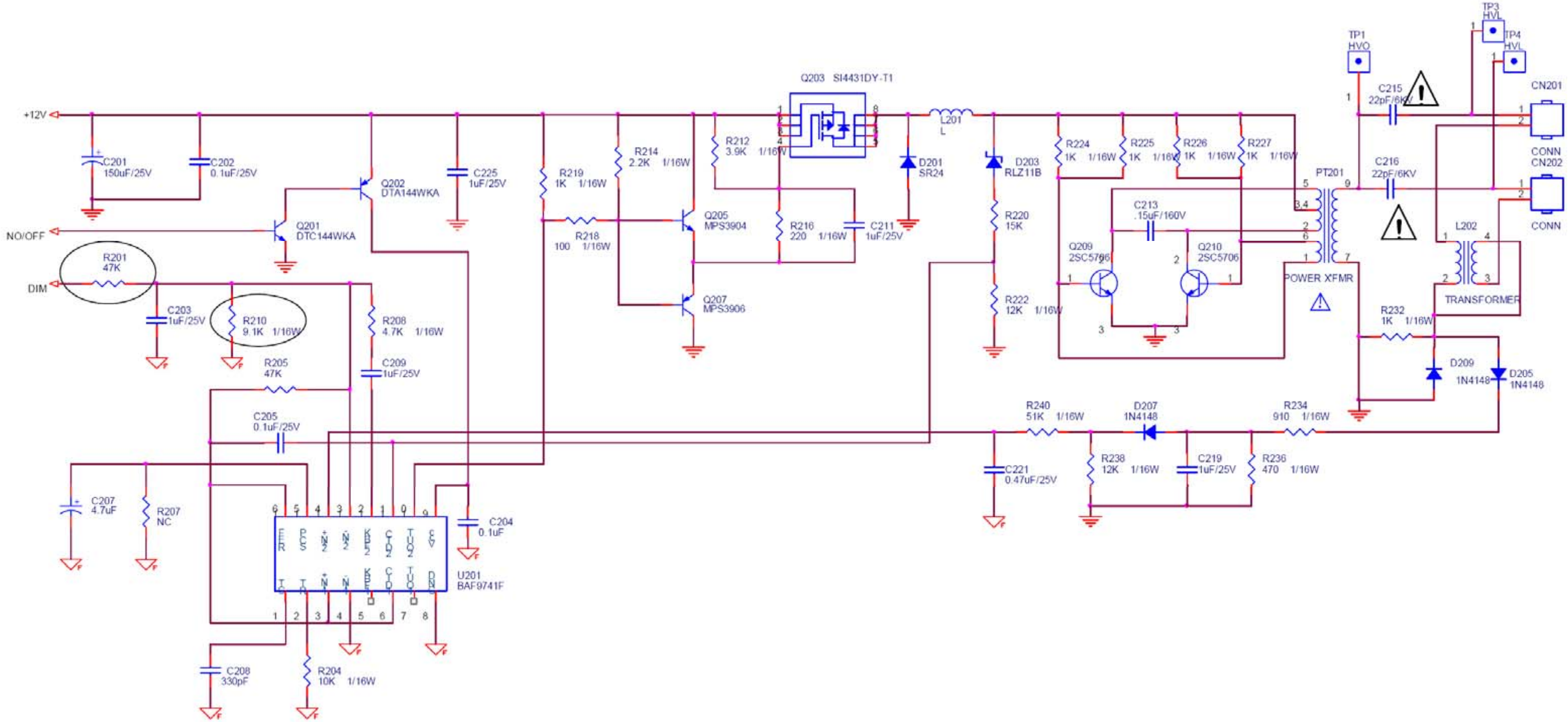
Include DVI (optional, only for Dual-input model)



Power Board



R920
47 1/2W
C920
0.001uF/500V
T901
D910 31DQ10
F902
FUSE
TO INVERTER
CN102
L903
BD901
2KBP06M
R906
1M 1/4W
R904
1M 1/4W
C906
0.0015uF/2KV
R903
100K 2W
C922
1000uF/16V
C924
470uF/16V
C928
0.1uF
FB903
BEAD
C905
100uF/400V
R922
47 1/4W
C921
0.001uF/500V
ZD904
SML4737A/1
R907
1M 1/4W
R905
1M 1/4W
D901
FR107
D902
PS102R
L904
D912
31DQ06
C925
1000uF/16V
C926
470uF/16V
12V
GND
GND
GND
5V
5VA
DIM
ON/OFF
C908
0.1uF
C907
10uF
R908
10 1/16W
FB902
BEAD
CONN
L902
L
D904
1N4148
POWER XFMR
C927
0.1uF
D905
1N4148
IC901
SG6841
R917
JUMPER
Q903
2SK2996
C904 0.47uF/250V
CN902
R916
24K 1/10W
SW_ON/OFF
GND
NC
C913
0.0047uF/250V
FB901
BEAD
R930
470 1/4W
C912
NC
R901
1M 1/16W
R902
1M 1/16W
R915
10K 1/16W
R918
20K 1/4W
ZD902
HZ12B2
ZD903
HZ5C1
D906
1N4148
ZD905
RLZ20B
C911
0.001uF
R919
0.39 2W
R914
NC
NR901
NTCR
IC902
PC123FY2 4P
R931
1K 1/16W
R909
4.7K 1/16W
R927
1K 1/10W
D903
1N4148
F901
FUSE
ZD901
RLZ20B
C909
0.1uF
R910
4.7K 1/16W
C936
0.1uF
R929
0 1/16W
R924
33K 1/10W
R925
3.6K 1/10W
C901
0.001uF/160V
C902
0.001uF/160V
R913
NC
R912
100 1/16W
Q901
2PA733P
IC903
HTL431
Q902
2PC945P
R928
1K 1/10W
C910
0.1uF
R911
4.7K 1/16W
C935
0.01uF
R926
24K 1/10W
CN901
SOCKET
CN301
CN302
INR
GND
INL
PHONEJACK
CONN
<Title>
POWER
Size
B
Document Number
Rev
1
Date: Friday, October 29, 2004
Sheet 1 of 3



+12V
NO/OFF
DIM
C201 150uF/25V
C202 0.1uF/25V
Q202 DTA144WKA
Q201 DTC144WKA
C225 1uF/25V
R219 1K 1/16W
R214 2.2K 1/16W
R212 3.9K 1/16W
Q203 SI4431DY-T1
L201 L
D201 SR24
D203 RLZ11B
R201 47K
C203 1uF/25V
R210 9.1K 1/16W
R208 4.7K 1/16W
C209 1uF/25V
R205 47K
C205 0.1uF/25V
R218 100 1/16W
Q205 MPS3904
Q207 MPS3906
R216 220 1/16W
C211 1uF/25V
R220 15K
R222 12K 1/16W
R224 1K 1/16W
R225 1K 1/16W
R226 1K 1/16W
R227 1K 1/16W
C213 .15uF/160V
Q209 2SC5706
Q210 2SC5706
PT201
POWER XFMR
TP1 HVO
TP3 HVL
TP4 HVL
C215 22pF/6KV
C216 22pF/6KV
CN201 CONN
CN202 CONN
L202 TRANSFORMER
R232 1K 1/16W
D209 1N4148
D205 1N4148
R240 51K 1/16W
D207 1N4148
R234 910 1/16W
C221 0.47uF/25V
R238 12K 1/16W
C219 1uF/25V
R236 470 1/16W
C207 4.7uF
R207 NC
C204 0.1uF
U201 BAF9741F
C208 330pF
R204 10K 1/16W